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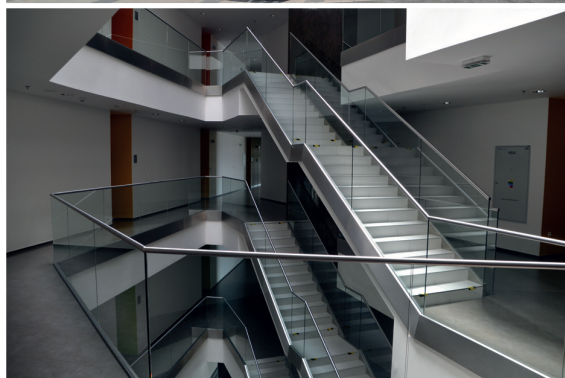
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EDITORIAL

Dear Readers,

The journal “Zdravotníctvo a sociálna práca” (*Health and Social Work*) was renamed in 2021 to International Journal of Health, New Technologies and Social Work.

Our long-term effort is to gradually acquire for the journal European significance and be included in international databases. Starting with issue No. 4 in 2016, the journal accepted the Harvard style of referencing, and changed guidelines for the authors. The aim of the changes was to move closer to the standard in international journals published in English in the area of health and helping professions. The editors are aspiring for registration in other relevant international databases. Since last 2020 the journal has published all articles in English only.

The journal “Zdravotníctvo a sociálna práca” (*Health and Social Work*) was established in 2006 at Faculty of Health and Social Work blessed to P.P. Gojdič in Prešov and St. Elizabeth University College of Health and Social Work in Bratislava. In 2020, the journal celebrated its 15th year of publication.

Previously professional journal, within 5 years developed into an international, peer-reviewed scholarly journal, published quarterly (4 issues per year). The journal were published by the St. Elizabeth University of Health and Social Work in Bratislava. The journal became international in 2009. The journal was published and distributed in the Slovak Republic and also in the Czech republic.

Since 2011, the journal is published both in print and as electronic issues, available from: www.zdravotnictvoasocialnapraca.sk. Starting by issue No. 3 in 2014, the scope of the journal has broaden and the journal is covering health sciences, such as Public Health, Nursing, Laboratory Medicine, but also helping professions such as Social Work or Pedagogy. Collaboration with Faculty of Health and Social Work of Trnava University in Trnava was initiated.

The journal is indexed in the following databases: Central and Eastern European Online Library – CEEOL (since 2018), Bibliographia Medica Slovaca (BMS), and Slovak reference database CiBaMed.

The part of journal is Supplementum, to publish abstracts from international conferences organized by the St. Elizabeth University of Health and Social Work in Bratislava. In 2020, the conference was planned, similarly to last year, in Ustroń, Poland. Due to the unfavorable epidemiological situation, the conference was postponed by the organizers to October 2021.

Prof. Miron Šramka, MD, DSc.
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in healthcare, nursing, social work and helping professions
in times of COVID-19 pandemic of the 21. century.*

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ABSTRACTS

Dental care effect on oral health of twelve-year-old children

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Abstract

Introduction: Gum disease and dental caries are considered to be the most wide-spread oral diseases in each individual. The inseparable part of oral disease prevention is individual and professional dental care, from birth on during the whole life. Insufficient oral care in children is still rising. Successful elimination of dental diseases depends on children's parents' attitude and on the regular visits of dental and dental hygiene clinics.

Objective: To find out the oral hygiene state in 12-year-old children, and consequently to map risk factors affecting dental health condition and level of mouth cavity individual care.

Material and methodics: To learn data for finding out the oral hygiene state, during patients' clinic examination, the QHI dental hygiene index was used, which identifies the level of risk of dental caries development. When mapping risk factors affecting oral health state and level of individual care for set of teeth, a non-standardized questionnaire of own construction was used. Data collection took place from November 2020 till January 2021. The questionnaire was distributed in person into dental and dental hygiene wards in Slovakia. For elaboration of empiric data, the simple descriptive statistics (absolute (n) and relative (%) number) was used.

Results: The study included 50 respondents from the country and the town at the age of 12. Through the clinic examination of child patients using QHI index 1274 teeth were examined altogether. The average number of examined teeth in one child was 25. The highest risk of dental caries development in 12-year-old children was present in children from the country (value 4,26; 4-5: high risk of dental caries development). During preventive examinations in 78 % (n = 39) of children two or more dental caries were found. Dental hygiene clinic is never visited by 36 % (n=18), and it is visited once a year by 58 % (n=29). Visit of a dental hygiene clinic was beneficial for 50 % (n=16) of respondents and 31 % (n=10) couldn't assess benefits. Dental sealant presents a basic preventive act of dental caries development; however, up to 94 % (n=47) of 12-year-old children didn't have their tooth sealed. Cleaning teeth presents one of the influenceable risk factors of dental caries development, and it is done by 50 % (n=25) of respondents in the evening only, and up to 18 % (n=9) don't clean their teeth at all. 60 % (n=30) of respondents are not aware of fluoride effects, 20 % (n=10) are persuaded that fluoride is harmful for teeth. During day, 62 % (n=31) of child respondents prefer sweetened drinks, and only 18 % (n=9) prefer pure water. Sweet meal consumption is preferred once a day by 60 % (n=30) of respondents, more times a day by 12 % (n=6) and during breaks at school 18 % (n=9) of interviewed.

Summary: Oral health education, thorough individual oral care, regular visits of dentist and dental hygiene clinic present the most important way of maintaining good state of oral health and overall children's health during the whole life. Positive attitude of parents and their children to oral cavity care

contributes to improvement of oral health state, and thus to reducing economic effects on the whole family and individual.

Key words: Dental hygiene care. Individual oral care. Fluoride. Prevention. Dental caries.

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Laboratory diagnosis of pneumonia - nurse participation

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Abstract

Introduction: Laboratory diagnostics plays an important role in identifying the pathogen and in subsequent antibiotic treatment. Part of the successful treatment as well as the diagnostic process is a nurse who, as a member of a multidisciplinary team, is in constant contact with a patient. Pneumonia is a term that refers to inflammation of lung tissue. Community-acquired pneumonia is one of the most common life-threatening pneumonias.

Core of Work (Findings): Using the available literature, the goal of the work is to sort out the knowledge about different types of pneumonia, their treatment and diagnosis, and to determine the role of the nurse in the collection of material to be examined. We used sites like Google Scholar, PubMed, Mendeley, Sciencedirect to search for foreign literature that was later used in the paper. To diagnose pneumonia, direct and indirect diagnostic methods are used.

Conclusion (s): Knowledge of the nature of laboratory examination methods is crucial for a nurse in terms of patient preparation, as well as the material collection itself and subsequent efficient treatment. The gold standard in the diagnosis of pneumonia is the cultivation and microscopy of microorganisms. The MALDI-TOF method belongs to the latest diagnostic methods.

Keywords: pneumonia, laboratory diagnostics, treatment, respiratory pathogens, nurse, nursing

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The Covid-19 pandemic and barriers for the hearing impaired in the hard of hearing group

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Abstract

Introduction: The hearing impaired are divided into deaf and hard of hearing, or according to the method of preferred communication to those who use sign language and those who use spoken language. In the hearing majority public, the misconception persists in our country that the hearing impaired who use spoken language, i. deaf, are not dependent on social services for the target group of people with hearing impairments.

Focus: The paper points out that the consequences of security measures, ever-changing restrictions and regulations against the spread of Covid-19 in the form of information poverty and emergency are beginning to manifest themselves significantly in people with hearing impairments in the Slovak Republic.

Core work: The current emergency situation caused by the disease COVID-19 makes it possible to point out the rather serious fact that in the Slovak Republic there are many citizens with hearing impairments of varying degrees and extent of disorder (mostly seniors, but also children) who communicate they use spoken, articulated speech, not sign language / language. This very large group (around 350,000 hearing impaired) is discriminated against in our country because it still does not have secure access to important information, e.g. from meetings of the epidemic staff, etc.) Access to information is currently provided only for a smaller group of deaf people (about 3.5 thousand) who use sign language for communication when there is no Transcription service and performances when speaking with a veil on their face. The veil covering the face of the mouth represents an insurmountable barrier to the perception of the spatial dimension of spoken speech and, consequently, to the successful perception of spoken speech. A problem with the current Slovak legislation (Act No. 447/2008; Act No. 448/2008) is also that it is aimed only at people with severe disabilities. It does not affect the population of people we call hard of hearings.

Conclusion: This part of the population of the hearing impaired, who does not speak, does not use sign language, is significantly discriminated against in a situation of pandemic, when district doctors prescribe by phone, when members of the epidemic staff and government officials appear with a veil on their face, because it has a big problem understand the spoken word and cannot help by looking from the speaker's face. In the absence of simultaneous transcription of the spoken word, equal access to informations and health care is not ensured for both groups of the hearing impaired.

Keywords: hearing disorders, hard of hearing, communication barriers

Conflict of Interest: None

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The influence of nordic walking training on the physical fitness of the elderly

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Abstract

Introduction: For years, data analyses have indicated a trend of aging of Polish society. Multimorbidity as well as the effects of aging have a direct impact on the psycho-physical condition of people in geriatric age. Activation of the elderly, especially in dimension systemic development, may increase the chance of the elderly to reduce the risk of complications related to reduced physical activity.

The aim of study was examination the effects of regular three-month nordic walking training in terms of physical fitness in the elderly.

Material and Methods: **Material and methods:** 118 people aged 63-87 (68.90 ± 4.86) participated in the study. The Fullerton Functional Fitness Test was used to examine physical fitness and questionnaire survey was completed.

Results: Data analysis showed statistically significant changes in the forearm flexion test ($p < 0.05$). The three-month training had an effect on the outcome of the get-up-from-chair test ($p < 0.05$) and the eight-foot test ($p < 0.05$). There were no differences in the sit and reach test ($p > 0.05$). In addition, a beneficial effect of training was evident in the back scratch test ($p < 0.05$). There was also an increase in the distance covered ($p < 0.05$).

Conclusions: Regular nordic walking training has a beneficial effect on changing components of functional fitness. Early implementation of training can be effective form of early prevention in geriatrics.

Keywords: physical fitness, nordic walking, the elderly

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Body posture and its abnormalities in children with oncological treatment

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Abstract

Introduction: Postural abnormalities are a serious problem in the growth period. Sedentary lifestyle and passive lifestyle have a significant influence on postural changes. Cancer diseases and their treatment affect calcium-phosphate balance, and consequently the state of bones and the process of posturogenesis. Oncological treatment temporarily excludes the patient from physical activity, causing many consequences and long-term complications.

The aim of study was to assess the quality of posture in children and adolescents with oncological treatment. It was checked whether oncological treatment is associated with the occurrence of postural abnormalities.

Material and methods: The study was conducted on a group of 37 patients with oncological treatment aged 9-17 years old forming the main group in confrontation with a 70-person group of healthy children and adolescents in the same age range. Scolimeter, digital inclinometer, plumb line, ruler were used to evaluate the body posture in three planes relating the scores obtained to the normative values for age and gender.

Results: Oncological treatment is associated with the occurrence of deviations from normality primarily in the transverse ($p<0.01$) and sagittal ($p<0.05$) planes. In oncological children and adolescents treated with steroids, with higher BMI assessed in centiles, spinal deformities are diagnosed significantly more often ($p<0.05$). Children undergoing oncological treatment lead a sedentary lifestyle compared to their healthy peers ($p<0.01$), while there was no difference in the use of electronic devices in both study groups ($p>0.05$).

Conclusions: Oncological treatment negatively affects posturometric parameters especially in the transverse plane. Children after oncological treatment have increased body weight and thus statistically more frequently diagnosed postural abnormalities. It is recommended to implement physioprophylactic behaviour from the beginning of oncological treatment in order to prevent body posture abnormalities.

Keywords: oncological treatment, postural abnormalities, physioprophylaxis

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Use of social therapies in long-term care facilities as a tool for activating seniors during the pandemic of the SARS CoV-2 virus

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Abstract

Introduction: Therapies are a frequent tool used in the development of the residual potential of seniors, to support the quality of life of seniors, who are provided with social services in the facility and the development of occupational rehabilitation, as well as to prevent loss of meaning in seniors.

Research objectives: The research was focused on finding out the importance of therapies in social services, the study was focused on finding out the motivating factors for participation in therapies, as well as the impacts of therapies on individual spheres of life of seniors.

Methods: There were used qualitative research to collected data including long-term care facilities and data were analysed by open coding in the period of the COVID-19 pandemic. The sample was consisted of receivers of social services (13).

Results: The strict measures against the spread of the coronavirus pandemic have caused social services facilities to remain closed and social care recipients to receive only basic care services, therapies to be limited or not implemented at all in the red zone. This caused a deterioration in the health status of seniors, whose inactivity and inaccessibility to therapies were reflected in increased passivity, impaired mobility, increased dependency and loss of meaning, or an increased number of deaths during the social isolation of seniors.

Discussion: Social services facilities had to deal with new crisis situations for which they were not prepared at the time of the pandemic, failed to mitigate the effects of social isolation of the elderly in time and quickly, lacked flexibility in implementing measures to protect the health of the elderly and

human resources in their implementation. The elderly experienced feelings of insecurity, frustration, fear of death or anxiety and weakening of the body, which were exacerbated by the pandemic situation for the spread of coronavirus.

Conclusion: At the time of the pandemic, social services had to face financial difficulties in securing measures against COVID-19, legislative changes and differing approaches to the situation caused misinformation, instability of social services and low development of programs for clients and employees.

Keywords: Social services. Activation of seniors. Therapeutic approach. Coronavirus.

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Use of canistherapy in a patient with cerebral palsy

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Abstract

Introduction: The incidence of patients with cerebral palsy (DMO) has been increasing in recent years. It is for ever-improving postpartum care that can keep children alive for whom it would have been almost impossible. However, this sometimes brings with it consequences that could completely change the child's life or family. DMO is such a consequence (especially of premature babies). A specific concept of physical exercise of a patient with dog therapists is also suitable for this type of disease. The patient involves muscle work, logical and strategic thinking thanks to interactive games with dogs. Therapy by licking the dog's tongue is used. This type of I-CT is essential for the support of hypotonic muscles and the relaxation of hypertonic muscles..

Methods and Material (or Core): We have chosen the form of case study In the patient of 5 years of age with DMO diagnosis (quadrapastic form). Basic dog intervention to patient needs with a description of individual exercises. Due to the patient's age, we preferred the form of play to obtain his attention and cooperation.

Results: Based on the data, we found that by regular exercise and maintaining the patient's condition with physiotherapeutic procedures, we can eliminate the signs of the disease. His behavior was adequately adapted to the process of adaptation and he completed all parts of the rehabilitation program. Adjustment of primitive reflexes and improvement of body coordination led to an overall improvement of the patient's sensorimotor skills (with the help of the dog's perception of higher dog temperature compared to humans). Adjustment of the breathing stereotype, increase of the patient's motivation for the exercise itself. Reduction of plastic holding of the upper and lower limbs adjusted by the method of "licking".

The influence of dogs on the patient was positively transferred to his health condition (relaxation of the flexion position of the upper limbs and spastic muscle groups). A total of three dogs were used to achieve the goal and fatigue of the dogs as needed. The animals were deliberately trained specifically: for positioning, education and motivation. The breed was called the white Swiss Shepherd. At the end of the therapy, we used the presence of another dog, a different breed - a French bulldog, which we used to position the DNS. The therapy took place without significant problems, it took place in the form of a game. We used all available aids, pulley system, light therapy and music therapy. The type of exercises were chosen according to the patient's needs, motivational and playful form.

Conclusion: The reason for choosing the methodology was to determine the impact of the assistance of an assisted dog on a patient with a serious diagnosis. As the method is complementary, the overall impact on improving the patient's health can be assessed overall after completing additional procedures and physiotherapeutic techniques. No further deterioration is expected with regular exercise. When a disease is diagnosed, physiotherapy alone is not enough. It is necessary to work with other professionals, such as neurologists, surgeons, psychiatrists, special educators, occupational therapists, special educators.

Keywords: Canis therapy. Cerebral palsy. The dog. Therapist, Animal Relationship.

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Management of upper limb lymphedema after breast cancer surgery

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Abstract

Introduction: One of the most common cancers in women in Slovakia is breast cancer. The incidence in 2019 reached value 51.6 / 100,000 women. Some patients may develop partial or total lymphedema of the upper limb after healing. For a long time, the lymphotherapy network, which uses physiotherapeutic procedures to influence lymphedema, has not been sufficiently developed. Therefore, we want to deal with aspects of lymphotherapy management here. It also hides demanding tasks in terms of managing economic indicators of burden and sustainability within the medical facility.

Methods and Material: The data and data necessary for the elaboration of the specialization work were processed in the form of a questionnaire from the patient 's perspective at the physiotherapy - rehabilitation department at the Trenčín University Hospital. Data and information for the calculation of the care provider's costs were obtained from the headmistress and the senior rehabilitation worker. The costs from the point of view of the health care payer were determined on the basis of the hospital's internal information system.

Results: To manage the operation of lymphotherapy, it is necessary to provide certification training for employees (in the field of lymphedema therapy techniques for physiotherapists in the amount of € 435 per employee), management (training in MPH) and last but not least to manage effective lymphotherapy planning for individual patients. Another aspect of therapy is the economic burden of the effectiveness of the therapy itself. The data available to me show that when a patient visits a medical facility, he undergoes a number of consecutive examinations and therapies, which are reflected in the wage costs on average € 725 per employee. The profit for the treatment of lymphedema of the upper limb from insurance companies for reported points on average per 1 patient per year is 325.76 €. The cost of the devices and their accessories per 1 patient is based on € 11.4 per year. The costs of medical devices are covered by insurance companies twice a year in the amount of € 30.96 with a supplement of € 7.06 from the patient. The costs of the device and accessories for home care on a doctor's prescription are

reimbursed in the amount of € 969.90 by the insurance company with a supplement from the patient in the amount of € 80.56. The total cost of home health care for one year is € 366.76. Another management function, which we also addressed in the questionnaire, was the control in the form of patient satisfaction with therapy, where 11.11% of respondents said yes.

The questionnaire also shows that the most applied method for the treatment of lymphedema of the upper limb is manual and instrumental lymphatic drainage. In 80% (patients with mild to moderate lymphedema), they used treatment exclusively in a health facility, while the remaining 20% (patients with severe lymphedema) underwent combination therapy with a predominance of home care. In terms of material costs and the amount of compression sleeves and dressing material used, 4 to 8 dressings per year were needed per patient. Limb bandage is paid by the insurance company in the amount of € 119.05 and the patient's supplement is € 118.14 per year.

Conclusion: My experience has shown that good management is a necessity for effective management of lymphedema, but we must not forget the economic aspect of the sustainability of the facility, so that it is a benefit for the department and not a burden. Due to the current pandemic situation of COVID 19, home therapy appears to be more effective in patients with severe lymphedema.

Keywords: Management. Quality of life. Lymphedema. Diet.

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The essence of the dilemma in the context of decision-making in helping professions

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Abstrakt

Introduction: Ethical dilemmas document the tension between altruism, egoism, and the common good in the helping professions. Dilemmas paralyze effective decision-making, therefore they need to be given adequate attention.

Core of Work: The aim of the paper is to demonstrate, with the help of historical-philosophical analysis, that it is appropriate to solve moral dilemmas with the help of the principle of "double effect". In the helping professions, the search for a solution is complicated by a large number of possibilities. This situation causes various conflicts that can be resolved by applying certain rules of hierarchy and priorities.

Conclusion: The paper defends the claim that the principle of "double effect" is a valid moral principle with a wide possibility of application in the helping professions, provided that certain rational premises are accepted.

Keywords: Moral dilemmas. Doctrine of Double Effect. Trolley Problem.

Conflict of Interest:

This paper is independently completed by Pavol Dancak, including conceptualization, methodology, investigation, writing – original draft preparation, writing – review, and editing, resources, and references.

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The determination of the resistance to insulin in clinical practice

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Abstract

Introduction: Insulin is a key regulator of glucose homeostasis. Insulin resistance is established by genetic and environmental factors (Bhawna Singh, 2010). Insulin resistance is a common condition, recognized to be a central feature of the metabolic syndrome, and strongly associated with an increased risk of cardiovascular disease and diabetes (Anwar Borai, 2007).

Core of Work: Due to the association between insulin resistance and atherosclerosis, there is an interest in the development of techniques to evaluate insulin sensitivity in vivo (Bruno Geloneze, 2006).

The gold standard in measuring insulin resistance is glucose clamp, but this method is difficult to apply in large studies (Marek Strackowski, 2004). The clamp technique is complex to undertake (Anwar Borai, 2007). Therefore, indirect indices of insulin sensitivity are proposed (Marek Strackowski, 2004). Therefore there is a need for accurate, reproducible and simple methods for measuring insulin resistance in vivo (R Rabasa-Lhoret, 2001).

Insulin sensitivity / resistance indices, which are calculated from glycemic, insulin and triacylglycerol values, are used to determine the degree of insulin resistance.

These indices lend themselves for use in large population studies where a relatively simple, inexpensive assessment is necessary. However, these tests all suffer from important limitations, including poor precision. Insulin resistance is increasingly being assessed in clinical situations, where relatively simple markers are required (Anwar Borai, 2007).

Various indices of insulin sensitivity/resistance were proposed in last years (Manish Gutch, 2015). There are two groups of insulin sensitivity indices: indices calculated by using fasting plasma concentrations of insulin, glucose and triglycerides, and indices calculated by using plasma

concentrations of insulin and glucose obtained during 120 minutes of a standard oral glucose tolerance test (Manish Gutch, 2015).

There are indices: homeostatis model assessment (HOMA-IR), quantitative insulin sensitivity check index (QUICKI), McAuley index, Belfiore index, Matsuda index and many others.

Simple indices may give valuable information about insulin sensitivity in large studies (Marek Straczowski, 2004). Although their simplicity is an obvious advantage, their application is subject to numerous limitations (R Rabasa-Lhoret, 2001). These tests all suffer from important limitations, including poor precision (Anwar Borai, 2007).

Conclusion: Evaluation of a number of clinical states where insulin sensitivity is compromised, requires an assessment of insulin resistance of insulin resistance (Bhawna Singh, 2010).

Insulin resistance is increasingly being assessed in various disease conditions where it aids in examining their pathogenesis, etiology and consequences. (Bhawna Singh, 2010). Estimation of impaired insulin sensitivity should be given importance mainly in individuals with risk factors (Manish Gutch, 2015).

Keywords: insulin resistance, glucose clamp, homeostasis model assessment, quantitative insulin sensitivity check index

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Simulation as an interactive method in nurse education

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Abstract

Introduction: Nursing education includes a curriculum in which it is important to ensure the integration of theoretical knowledge and psychomotor skills into clinical practice. Simulation is an educational process that can replicate clinical practices in a safe environment. Nursing students who participate in educational programs involving simulation are better able to develop their critical thinking and clinical decision-making skills.

Core: The aim of this paper is to present the establishment and activities of the Centre for Simulation and Virtual Medicine at the University of Pavol Jozef Šafárik, Faculty of Medicine in Košice, which represents application of interactive learning in medical disciplines.

Conclusion: In conclusion, the future of nurse education is undergoing innovative changes. Simulation creates a real environment with regard to the acquisition of professional skills and meets the trends of modern education.

Keywords: Nurses, Education, Simulation

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Radical surgical removal of the eye globe (enucleation) versus radiosurgery for uveal melanoma

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Abstract

Introduction: The eye globe removal is a relatively common surgery that can treat certain eye diseases, alleviate eye pain, and greatly improve the patient's quality of life. The indications for evisceration and enucleation are still evolving and controversial, but in some conditions necessary to be performed. Enucleation is also today most frequently due to malignant intraocular tumors, while evisceration if most frequently for the phthisic eye after a trauma or a previous intraocular surgery. Several weeks after surgery, an artificial eye, or prosthesis, is made by an ocularist.

In patients with intraocular tumors the aim today is to preserve the eye anatomically.

Methods and Material: In period 10 years period patients with intraocular tumors (uveal melanoma) were included in the study. The study included a total of 320 patients.

Patients' subjective problems with removal of the eye globe were compared with those with eye preserved therapy (stereotactic radiosurgery at LINAC).

Results: In patients with enucleation the consequence was the total loss of visual acuity in one eye but in patients with radiosurgery the retained eye globe was with visual acuity from 0.1 to 1.0% (6/60 to 6/6 Snellen chart).

Conclusion: The lost of eye globe is not only functional defect but also cosmetic problem which can lead to several problems even though the prosthesis is easily removable, and may be removed as needed for cleaning. The prosthesis lasts decades in many patients, but the total loss of eye globe leads to severe subjective problems. In patients, who passed radiosurgery, the eye preservation is very important..

Keywords: Orbital Surgery, Tumors/Neoplasms, Enucleation, Radiosurgery at LINAC

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The importance of hydrokinesiotherapy in bathroom equipment for health and quality of life

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Abstract

Introduction: Hydrokinesiotherapy is a professionally leaded active-therapy that uses the beneficial effects of the aquatic environment. The mechanical effect of water consists in the action of hydrostatic pressure and hydrostatic buoyancy. The water temperature usually ranges from 34 to 36 °C. The depth of the rehabilitation pool is 120 cm - 130 cm with the length of the exercise 20-30 minutes.

Methods: The exercise is performed in groups or individually with a focus on the diagnosis. At present, a number of methodologies and aids are available which can be used to influence the purpose and significance of hydrokinesiotherapy, especially for specific diseases. It is possible to influence and improve the state of health within the spa treatment. Some techniques require the presence of a physiotherapist in the water with the patient. However, the physiotherapist should not be in the water without a break for more than 2 hours. Water resistance can be increased by a countercurrent device.

Results: The resistance of the water strengthens the individual muscle groups, while the static and dynamic function develops harmoniously. The water pressure acts as a light lymphatic drainage, at the same time it pleasantly facilitates the buoyancy by reducing the effect of gravity, which affects the proprioceptive signaling and thus the quality and coordination of movement. All these circumstances manifest themselves as positive factors which, in addition to improving mobility, reducing pain, have a positive effect on the patient's psyche. Therefore, it is safe even in people with insufficient muscle corset. The great importance has dynamic stabilization exercises that develop muscles for stability. It is easier to achieve muscle relaxation, which improves the ability to repeat maximum muscle tension. Movements in the water are less painful. In the water, it is possible to practice walking after injuries and operations on the lower limbs, where full load is not yet allowed. This makes it possible to influence the positive results of hydrokinesiotherapy in spa facilities.

Conclusion: Staying in spa facilities with the possible use of hydrokinesiotherapy allows, in addition to balneotherapy with natural thermal healing waters, also the rational use of all components of spa regimen treatment. Hydrokinesiotherapy is also suitable for chronic and recurrent problems. Many scientific papers and randomized prospective studies on physiological mechanisms confirm the importance of hydrokinesiotherapy.

Keywords: Hydrokinesiotherapy. Methods of exercise. Izothermal temperature. Spa facilities.

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Basic ethical issues in communication with the patient in the current period (COVID-19) and their impact on the diagnosis and treatment of some selected diseases

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Abstract

Introduction: The Covid-19 viral infection is a new, up to now unknown disease that has taken virtually the entire world in a matter of weeks and in the various forms and extent of the disease itself and the associated limitations. It has claimed only a few million direct casualties so far (in about 1.5 years almost 5 million), millions of patients worldwide with more or less serious consequences after coping

with Covid-19. At the same time, we are facing problems in the provision of healthcare, to patients with their diagnoses, often serious, which are becoming problematic as a result of anti-pandemic measures

The core of work: Based on current and professional sources available to the professional public in Slovak, Czech and foreign literature (www.korona.gov.sk, zdravoteka.sk, <http://prnewswire.com>.), The authors document some selected diagnoses, before 2019 and in the period 2020- 2021, in a period of significant anti-epidemiological measures.

They deal with the still generally valid ethical principles in communication with the patient in clinical practice (Šimek, 2015), changed conditions in the current period, sensitivity of some questions and answers, which in recent decades and decades within e.g. collection of anamnestic data were not at all interesting or important. On some selected diagnoses, the authors document - in some cases a significant decrease in examinations in supplementary wards (pathological and dermatological or oncological outpatient clinics), a slight decrease in the number of surgeries, but a significant increase in severe disease - whether in malignant neoplasms of skin and subcutaneous tissues, or monitored diagnoses and surgical procedures in the field of acquired or degenerative diseases in the field of hand surgery.

Conclusions: In comparison with some basic data from the period before the covid-19 pandemic and during its duration, so far we have noticed a significant significance and different curves, which, however, are related to the scope of practiced anti-epidemiological measures. In general, there is a significant decrease in some performance, whether in the diagnosis or. their treatment, and a new onset, which we have been registering since about the spring of 2021. However, it still does not reach the average and long-term statistical numbers as before 2019. and creativity in specialized healthcare from dermatologists, oncologists, surgeons or plastic surgeons. In addition, it is necessary to think about new possibilities of obtaining information about the patient, e.g. form of telemedicine, which is of great importance in some cases. Increased dispensary care in selected risk groups. We can not assume that in the course of in 1-2 years, the incidence of some such serious diseases has decreased dramatically. Rather, it is true that the number of patients with serious diagnoses will be reflected in our clinics and clinics in a short time.

Keywords: COVID-19 infection,etics, skin cancer, hand surgery

Conflict of Interest: None

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COVID-19 and its impact on marriages and family lives

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Abstract

Introduction: The pandemic of COVID – 19 has brought new social behavior. Different kind of living, loneliness and home offices have suddenly changed the family lives and marriages. Lockdown and remaining at home have affected the number of divorces. We are analyzing how many divorces and regulations within the rights and duties towards minor aged children have been applied and how many decisions have been taken at the District Court of Bratislava I in 2019, 2020 and 2021.

Material and Methods: Analysis of statistical data, Comparison of results

Results: At the District Court of Bratislava I, there has been applied for fifty-two divorces within the families without minor aged children (which means 4,3 monthly rate) during the year 2019, in 2020 for sixty-six divorces (5,5 monthly rate) and starting from January until July of 2021 for fifty-four divorces (7,7 monthly rate) – agenda Pc.

In 2019, at the District Court of Bratislava I, it has been applied for divorces and regulations of the rights and duties towards the minor aged children (less than 18 years old) in 151 cases (12,6 monthly rate), during the year 2020 it has been applied in 182 cases (15,2 monthly rate) and starting from January until July of 2021 same has been applied in 123 cases (17,6 monthly rate) – agenda P.

The District Court of Bratislava I has taken decisions in 2019 in 277 cases (23,1 monthly rate), in 2020 in 201 cases (16,8 monthly rate) and in January – July of 2021 in 116 cases (16,6 monthly rate) – agenda Pc and P.

The COVID – 19 pandemic has changed marriages and family lives. Starting from 2019 up to 2021 it has contributed to growth of the number of divorces and regulations the rights and duties towards the minor aged children in Bratislava I.

The COVID – 19 pandemic has changed the making of decisions at the District Court of Bratislava I, as there have been made lesser decisions.

Conclusions: COVID-19 impacted the marriage, family and court taking decisions.

Keywords: COVID-19, marriage, family.

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Scoliotic posture and biological age measured by pubertal growth spurt in girls and boys

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Abstract

Introduction: Puberty is a critical period in the development of children and adolescents. The changing proportions of the body are accompanied by an increase in the load on the musculoskeletal system caused, among other things, by rapidly increasing body weight. Progressing growth processes in puberty and reaching sexual maturity may be connected with the formation of a scoliotic posture. The aim of this study was to compare the body posture and the size of the rotational deformation of the trunk in children aged 10-15 years before and after pubertal growth spurt.

Material and Methods: The study included 40 subjects of both sexes from Wrocław, aged 10.3 to 15.6 years, who reported for the first time to the Postural Defects Outpatient Clinic with a suspicion of rotational deformity of the trunk. Anthropometric measurements including body height, body weight, sitting height, and length of the lower limbs were used to calculate the biological age based on Mirwald equations. The torso rotational deformation was expressed by measuring the angle of trunk rotation (ATR) with a scoliometer at the proximal thoracic, major thoracic and lumbar spinal levels. To obtain the value of global rotation of the torso, the sum of three rotations (Hump sum) was used.

Results: In the examined children and adolescents from Wrocław, irrespective of their calendar age, after pubertal growth spurt, traits describing lateral curvature of the spine showed higher values, reaching especially for maximum ATR and Hump sum a highly statistically significant level.

Conclusion: Scoliometer testing should be permanently included in periodic body measurements at school, especially among 10-12 year old girls who are at risk of greater scoliosis progression. The

medical rehabilitation therapist or orthopaedic practitioner should include the measurement of sitting height in the routine measurements taken at the medical appointment. This will provide a non-invasive assessment of the child's pubertal status, which will help in choosing the type of rehabilitation and when to start it.

Keywords: scoliosis, body posture, APHV, Maturity Offset

Financial support or grants / Conflict of interest: none

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COVID 19 in homeless in 2020-21-low occurrence of postcovid syndrome in „life island“ model shelters

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Abstract

Introduction: Homeless individuals are reported as population at risk for COVID 19 and other respiratory viruses such as influenza.

However, in university shelters near Bratislava, this was not confirmed, and both mortality, and morbidity were minimal, and occurrence of Postcovid syndrome was rare. The reason for this phenomenon is probably low viral load in homeless and their special isolation.

Patients and Methods: In 3 shelters served by medical and social personnel from the university within the capacity 42,17,13 and 22 homeless (De Paul low threshold, other full day higher threshold level), occurrence of covid 19 by antigen and antibody tests in both covid seasons were compared.

Results: In the first pandemics, march to sept 2020, none of clients were infected or positively tested neither with antibody (summer 2020) or antigen tests (sept 2020). Within the second wave (autumn to christmas 2020) only one case with mild symptoms was detected. From jan to april 2021, many clients were infected-, 48 of 94 homeless clients were infected and confirmed with An and subsequently by PCR test at admission (50.5 perc) however only 1 died (1 perc) and 2 required hospitalisation (2 %) the rest had mild symptoms (headache anosmia, low fever, fatigue, myalgias cough, weakness) and received

triple combination azithromycin or chloroquine hydroxyphosphate plu vitamin D 2000iu/day, plusimmunoglucan or isoprinosine. Postcovid syndrome wasdiagnsedonly in l case (3m follow up)

Conclusions: Apart of one, none deaths occurred in a cohort of homeless from 4 shelters in Bratislava, and only 2 percent of cases required hospital stay and oxygen therapy, the rest was oligosymptomatic or asymptomatic, despite the homeless population is declared as high risk group for resp tractintections such as Covid, Influenza and TB. The reason for this unexpected phenomenon our strategy management of prevention for homeless in every year flu season adapted for covid-life island model, where at the onset of pandemics, clients were isolated in fullboard homes with free food, cigarettes and other incentives if not leaving the facility and not travelling to downtown, where the concentration of infected was very high. Closure of churches prevented begging and restrictions in shopping decreased the intention to travel and helped us to keep the „ life island,, model effective for prevention not only during Covid first and second wawe, but also in influenza autumn and winter seasons such asagaist TB acquisition.

Keywords: postcovid syndrome, homelessness

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The role of empathy in the relationship between patient and medical service

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Abstract

Introduction: Contemporary society have a growing problem of a lack of effective communication and understanding both between individuals and among whole groups of people. The relationship between healthcare professionals and the patient is quite special. The patient usually comes with suffering, often fearful, expecting from the other side interest, understanding and compassion. Empathy is a special feature in establishing and maintaining good interpersonal relationships, expressing professionalism in the medical service.

The essence of the work and the basic assumptions: The work concerns the role of empathy in the context of the relationship: patient-health care workers. The definition of empathy was presented and its basic functions in interpersonal relations were determined. Research methods determining the level of the sense of empathic sensitivity were also presented.

Summary: Empathy is defined by most researchers as a cognitive-emotional construct, assuming the ability to read, recognize, interpret and feel the emotions and states of other people. The sense of empathy is an important component of the personality of medical professionals. It is not only an element of therapy in the psychological sense, but also becomes a moral obligation and an expression of professionalism.

Keywords: empathy, communication, patient-medical service relationship

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Analysis of state interaction in international organizations to overcome the COVID-19 pandemic

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Abstract

Introduction: The severe epidemic of coronavirus infection COVID-19 (*CO*rona *VI*rus *D*isease 2019) caused by the coronavirus *SARS-CoV-2* (*S*evere *A*cute *R*espiratory *S*yndrome-*R*elated *C*oronavirus 2) was recorded in the Chinese province of Wuhan in late 2019 and began to spread rapidly throughout the country and beyond. As a result of this rapid spread, the World Health Organization was forced to declare a pandemic on 11th March 2020.

It is impossible to predict the sudden occurrence and rapid spread of infectious diseases worldwide, as was the case with COVID-19. However, there is an opportunity to take a number of preparatory measures that minimize the impact and consequences of such emergencies.

Core: The world is still raging in pandemics, the scale and spread of which is greater than any other in human history. The social and economic upheaval caused by COVID-19 is affecting families, communities and countries around the world.

The severity of the consequences of the pandemic is undeniable:

- According to confirmed data, in 223 countries, territories and regions, the diagnosis of COVID-19 was confirmed in 219,456,675 people and 4,547,782 people died from the disease (as of October 6, 2021, according to Johns Hopkins University) [1].
- At least 17,000 health workers died of COVID -19 in the first year of the pandemic - these numbers are likely to be greatly underestimated due to the lack of relevant statistics [2];
- By the end of 2021, the level of economic output is expected to fall by \$ 10 trillion and by \$ 22 trillion in 2020-2025, the most serious shock to the global economy since World War II and the biggest current decline in economic efficiency in many countries since the Great Britain. economic crisis in 1930-1932. [3];
- At the height of the pandemic in 2020, 90% of schoolchildren did not have the opportunity to attend school [4];
- 10 million girls are at risk of early marriage due to a pandemic [5];
- The number of emergency calls in relation to gender-based violence has increased fivefold [6];
- 115-125 million people are below the poverty line [7].

The relevance of this article lies in the importance of analyzing the world situation, the interaction of states within international organizations, identifying the reasons for the development of the epidemiological wave and proposing measures to improve control over its development in order to overcome the COVID-19 pandemic.

Results: Based on our work, we can say that the measures enforced so far taken by the international community are in line with these provisions and are relatively proportionate to the risks and consequences already in place. Thanks to the forced suspension of social and economic life, states have managed to suspend and to some extent reduce the spread of the virus among the population. These safeguards helped reduce some of the short-term effects of the virus, and based on information about

the virus, provided time for a decision that allowed a painless and risk-free return to a temporary, more normal lifestyle.

In such a crisis situation, of course, each head of state decides differently, based on the situation and the specifics of the region. In this case, the expression of strong political will, correct and consistent decision-making – is very important, because the lives of millions of people are at stake on the one hand, on the other hand, on economic development and the stability of the whole state.

Conclusion: The COVID-19 pandemic remains very uncertain. Countries are seeing an increase in infections, and experts are talking about another wave that could have potentially even more serious consequences (especially economic) compared to the situation that developed in spring and summer 2020. In such circumstances, countries can be expected to take new measures against COVID-19, while SAIs will have to reassess their forecasts and assessments of government measures in the light of updated state plans to implement pandemic measures.

Keywords: Keyword Pandemic. COVID-19. International organisation. Interaction of states.

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Sociodemographic Determinants of the Quality of Aging of Podkarpacie Inhabitants

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Summary

Introduction: Demographic processes clearly indicate the aging process of many societies. This raises concern for the quality of life of the elderly. Despite the convergence of many elements of successful aging in the concepts of many researchers, there are some culturally conditioned differences. The aim of the study was to investigate the quality of aging of the inhabitants of the Podkarpackie Province (south-eastern Poland).

Material and methods: The study covered 171 people - 103 women (60.23%) and 68 men (39.77%). Age of respondents: mean: 73.61 (SD = 7.06); min-max: 65-93. They were residents of the Podkarpackie Province. The sociodemographic data of the respondents was collected. The quality of aging was tested using the SAI questionnaire.

Results: The analysis showed a correlation between age and the health / fitness domain only: $r = -0.342$ ($p = 0.000$). Gender did not differentiate SAI. The variables differentiating SAI were: education ($p = 0.05$), household management ($p < 0.0001$) and disability ($p < 0.0001$).

Conclusions: The factors positively influencing the quality of aging are: higher education, living with a spouse or family, and no disability.

Keywords: quality of aging, sociodemographic variables, factors influencing the quality of aging,

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Monitoring of biofilm production in clinical and environmental strains

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Abstract

Introduction: Biofilm formation in both environmental and clinical strains is an important virulence factor for the pathogenesis of disease. Despite the use of sanitary regimes and adherence to nursing barrier techniques, the transmission of etiological agents in the hospital environment is extremely topical.

Aim: In our study, we monitored and compared the ability of biofilm formation in clinical strains and strains obtained from the hospital environment.

Material and Methods: We determined the ability of biofilm formation by standard quantitative Chisensten method in microtiter plates, which includes inoculation of bacterial culture in brain-heart infusion into microtiter wells, their incubation, washing with phosphate buffer, fixation of bacterial biofilm with methanol and staining with crystal violet, releasing of bounded staining by 33% glacial acetic acid and measuring the optical density of the solution at 590 nm.

Results: Out of the total number of 42 environmental and 44 clinical strains, we found the ability of biofilm formation in 38 clinical strains (86.4%) and 38 environmental strains (90.5%). There was no difference in cell adherence between the two groups (Fisher's test, $p=0.74$). We did not find statistically significant differences in the rate of biofilm formation between G + cocci and G-rods in clinical strains (Fisher's test, $p=0.29$), but in the case of environmental strains G + cocci showed a statistically significantly higher rate of biofilm formation compared to G- rods (Fisher's test, $p<0.001$).

Conclusion: Biofilm infections are from a medical point of view serious and account for more than 65% of microbial infections in the body. Their treatment is relatively difficult, as the bacteria living in the biofilm tolerate significantly higher concentrations of antibiotics than planktonic bacteria. The risk of the occurrence of environmental strains in hospital facilities is related to the development of nosocomial infections and their more problematic treatment due to the ever-increasing resistance of the strains to antibiotics.

Keywords: Biofilm. Clinical and environmental strains. Infections.

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Total dentures in the context of quality of life

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Abstract

Objective: The aim of this thesis is to find out how much impact does using of a total denture have on a self-viewed quality of life, to verify which of the chosen risk factors have an impact on the quality of life in context of oral health and to determine whether the toothless respondents in ambulant care do their regular dental check-ups.

Material and Methods: For the purpose of this thesis we have used anonymous questionnaires consisting of Oral Health Impact Profile questions (OHIP-14) and authors own questions. The Mann-Whitneys test and Kruskal-Wallis test were used to attest the hypothesis, using the SPSS statistic program. The results are projected in the Microsoft Office Excel 2007. The research took place in the private dental ambulance it had 102 patients of this very ambulance, who used conventionally produced total denture.

Results: The research proved that life of people with total dentures was worse in all observed subdomains. The biggest problems were reported in subdomains mapping mental discomfort and limitations regarding function. These were followed by physical pain, mental incapability, social handicap, overall handicap and physical incapability. Of all of the observed risk factors, the influence of education, family status, age, type and age of the denture, smoking and regularity of checkups were proven statistically. A neglecting of dental prevention was proved with 24,50 % of respondents.

Conclusion: A total denture significantly intervenes it's user's everyday activities and has a direct influence on self-viewed quality of life. Regular check-ups in dental ambulance and making evaluations using OHIP-14 can help the nurses in clinical practice to solve the issues regarding dentures faster and more effectively.

Key words: total denture, quality of life, OHIP-14, prevention

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**Influence of meteorological factors on cardio-respiratory system in association
with cardiovascular and pulmonary disease**

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Abstract

Introduction: With continued climate change, extreme meteorological events are expected to become more frequent, intense, and longer lasting. Exposure on changing weather patterns can cause and exacerbation a wide range of diseases and even result in deaths, especially among vulnerable individuals who lack sufficient physiological and behavioural responses to weather fluctuations.

Aim: The aim of the study was to summarize the current state of knowledge and the latest scientific reports on the impact of meteorological factors, such as air temperature, atmospheric pressure, humidity, wind and other weather exposures on the circulatory and respiratory system in association with cardiovascular and pulmonary diseases.

Summary: Temperature shows stronger association with symptoms than humidity or other weather exposures with a few exceptions. It might be explained by maintenance of a constant body temperature is vital in homeostasis and human survival. However, it is worth noting that air temperature is also the most studied meteorological parameter.

As reflected in the literature, the relationship between exacerbation of cardiovascular and respiratory disease and weather exposure is very complex and modulated by several factors, such as age, sex, socioeconomic factors and environmental conditions, pre-existing chronic diseases, use of certain medication and interaction between weather factors.

Key words: weather, cardiovascular, respiratory

Source of funding / Conflict of interest:

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Consequences of the coronacrision on the unemployment of economic migrants from third countries in the Slovak republic

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Abstract

Introduction: The health crisis caused by the global spread of coronavirus has numerous negative consequences for all spheres of society and poses various challenges to numerous systems, but also to individuals. Restrictive measures taken by national governments since the beginning of the pandemic to prevent the spread of the virus have negative consequences not only for the global economy but also for the mental health of the whole population.

Core of work: Uncertainty and job loss, the constant presence of fear for oneself, but also for the health of loved ones, depression and loneliness, are just some of the situations that people face on a daily basis. Economic migrants who have left their country and moved to another country for work are also at a disadvantage. During the first wave of the coronavirus, a large number of foreigners in the Slovak Republic lost their jobs and work permits. Due to the fact that the plants in which foreigners are employed are also in crisis, this trend continued in the following waves of the virus. Mass redundancies have caused existential problems not only for locals but also for foreigners.

Conclusion: In this paper, we analyze the economic situation and social problems that economic migrants in Slovakia face. At the same time, we deal with the consequences caused by the corona crisis and present the possibilities of social work in this area.

Keywords: Economic migrants, Corona crisis, Unemployment, Social work

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Dimensions of social rehabilitation in the context of integrating disabled persons into society

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Abstract

Introduction: Within human society, man is a social being, he is humanized and socialized. This also applies to people with disabilities. Every disability, post-traumatic condition, and diseases of the musculoskeletal system require comprehensive rehabilitation.

Methods: The concept of rehabilitation is most often associated with physical rehabilitation and the basic premise for the process of rehabilitation is the deterioration of human health. However, in the context of social services, we often encounter the term social rehabilitation. on social services as a professional activity to promote independence and self-sufficiency.

Results: The aim of the thesis is to point out the importance of comprehensive rehabilitation with emphasis on social rehabilitation and to emphasize the importance of comprehensive rehabilitation (social rehabilitation) as an important factor in the integration of people with disabilities, people after injuries and people with musculoskeletal diseases in society. The goal is to find out how rehabilitation

and social workers evaluate cooperation with the clients of selected rehabilitation centers and also how the clients evaluate this cooperation.

Conclusion: Social rehabilitation has an irreplaceable place in the process of integration into the society of people with disabilities, after injuries and also people with musculoskeletal diseases.

Keywords: Disability. Injuries. Musculoskeletal system. Comprehensive rehabilitation. Social rehabilitation, integration.

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The importance of breast cancer preventive education

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Abstract

Introduction: Breast cancer is a serious challenge for treatment and prevention including the newly developing physioprophyllaxis. Among modifiable factors, prevention based on women's knowledge about breast cancer, lifestyle changes, and widely understood breast control is of great importance.

The aim: of the study was to estimate the importance of education in the prevention of breast cancer among women.

Material and methods: The study involved 194 women aged from 18 to 59 years old divided into age groups. The study was based on the method of diagnostic survey conducted anonymously. The questionnaire contained, among others, questions concerning the components of lifestyle and its importance in the prevention of breast cancer as well as self-examination and systematic specialist control. The consent to conduct the study was obtained from the Bioethics Committee.

Results: The level of physical activity of women is unsatisfactory in every age group ($p>0.05$), although the knowledge of reducing passive lifestyle is sufficient. Women do not know risk factors and alarming symptoms, and they blame the condition on the lack of professional training, which forces them to use the Internet most often. The vast majority of women perform breast self-examination but do not regularly use specialized control.

Conclusions: Theoretical knowledge of breast cancer prevention is at different levels depending on the age of women, although its application in practice still leaves a significant gap. Promoting knowledge of prevention is necessary from the youngest age in order to reduce the incidence of this disease.

Keywords: physical activity, prevention, breast cancer

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Physical activity and health behavior of women during the menopause.

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Abstract

Introduction: Systematic physical activity is a very important factor influencing the state of health. Exercises during menopause prevent osteoporosis, muscle atrophy and changes occurring in the joints. In addition, physical activity during menopause helps to maintain normal body weight by reducing body fat, increasing metabolism and avoiding the yo-yo effect.

Aim The main aim of the study was to assess the relationship between health behaviors and physical activity undertaken in women during the menopause.

Material and methods: 143 women participated in the study. The study was conducted in the period April - May 2021. Each person examined gave their informed consent to conduct the study. A diagnostic survey method was used in the study - the technique was a questionnaire, and the research tools were: the author's questionnaire, MRS Menopause Rating Scale, International Physical Activity Questionnaire - IPAQ, Health Behaviour Questionnaire – IZZ. The Statistical Product and Service Solutions (SPSS) version 26 was used. The significance level in all tests was 0.05.

Results: The age of the respondents ranged from 45 to 65 years ($M = 54.06$; $SD = 6.62$). Marital status ($p < 0.0004$) determined total physical activity – physical activity was significantly higher in married women than in single women. Occupational activity ($p < 0.0114$) and age ($p < 0.001$) significantly differentiated the health behavior of women during the climacteric period. Data analysis showed no relationship between health behaviors and the total physical activity index, $r(95) = -0.09$; $p > 0.05$.

Conclusions: The physical activity and health behavior of women in the climacteric period are determined by a few socio-demographic factors. Health behaviors do not determine the level of physical activity in menopausal women.

Keywords: physical activity, menopause, health behavior

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The use of combination therapy in the case of subungual exostosis

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Summary

Introduction: Subungual exostosis (SE) is an excessive growth of bone tissue in the form of a benign tumor. In podiatry practice, it most often affects the distal phalanx of the big toe, while the classic symptoms are elevation of the nail plate, extensive onycholysis from the free edge, shortening of the placenta and pain when wearing shoes. It occurs mainly in young adults, often causing deformation of the toe pad or completely stopping the growth of the nail, which in effect additionally leads to thickening and screwing in of the nail. SE is often misdiagnosed, leading to inadequate therapy.

Objective of the work: The aim of the study is to present combination therapy in the treatment of the problem of exostosis, which enables the reduction of symptoms and the complete elimination of this defect in the nail apparatus.

Case presentation: The paper presents a 24-year-old patient after a mechanical injury, who was diagnosed and treated for the problem of exostosis after 5 years. The activities began with the proper preparation of the nail in the podiatry office, through a surgical procedure in the area of the fingertip, consisting in the removal of the SE. After the skin had healed, the VHO-Osthold® Perfect orthonyx buckle was used to activate the placenta and correct and straighten the nail plate.

Conclusions: The mechanism of exostosis is not entirely clear, but trauma patients most often come to the office. Chronic irritation of the phalanx and birth defects appear to be the main triggers of SE. Among the therapeutic options, the most effective approach is surgical intervention with podiatry before and after surgery. Recurrences after total excision are rare.

Keywords: subungual exostosis, podiatry, toe surgery, combination therapies, orthonyxia

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Influence of health behaviours on the occurrence of burnout syndrome among nurses

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Abstract

Introduction: The professionalization of the nursing profession is connected with the increased responsibility for the performed activities and requires a higher and higher level of professional qualifications and knowledge (Kisiel-Dorohinicki, 2012, Dz.U.2019, Dz.U.2020). Performing complex functions: caring, educating, promoting health, prophylactic and therapeutic, apart from specific predispositions, the nurse is also required to be in good health due to direct contact with people who need help, support, empathy and care for their life and health (Burian, 2003, Cichorz, 2018). The negative effects of stress in a nurse's professional work contribute to the occurrence of fatigue, neurosis or occupational burnout among them. Fatigue is defined as the body's response to stress for a sustained period of time, which is the result of the accumulation and impact of everyday stressors over a period of time. The impact of the above-mentioned stressors of everyday life on the human body causes negative emotions and fatigue.

Aim: The aim of the study was to assess the impact of nurses' health behavior on the occurrence of burnout syndrome.

Material and methods: 150 active nurses participated in the study. The research was conducted in the first half of 2021. The diagnostic survey method was used, the technique was a questionnaire, the research tools used were: the original questionnaire, a multidimensional model of occupational burnout - Christina Maslach's test, Health Behavior Inventory (IZZ). Spearman's rank correlation coefficient was used to determine whether there were statistically significant correlations, and to determine whether there were statistically significant differences in the mean results between the two research groups, the Student's t-test for independent samples was used. The significance level of $p = 0.05$ was adopted in the statistical analyzes. The analyzes were performed using the SPSS 24 program.

Results: The respondents who experienced greater burnout in the context of emotional exhaustion assessed their health behaviors lower ($p = 0.011$). The lower-rated health behavior influences the occurrence of burnout syndrome in the context of emotional exhaustion. However, the assessment of health behaviours was not found to be correlated with the assessment of one's own abilities ($p > 0.05$).

Conclusions: Health behaviors of nurses influence the occurrence of burnout syndrome. The respondents who experienced greater burnout in the context of emotional exhaustion assessed their health behaviors lower. The lower-rated health behavior influences the occurrence of burnout syndrome in the context of emotional exhaustion. Health behaviors are not only correlated with the assessment of one's own abilities.

Keywords: health behaviour, professional burnout, nurses

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Animal therapy in the COVID-19 pandemic

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Abstract

Introduction: COVID-19 and lockdowns initially affected and forced most of the population to start working from home and almost everything started online. The pandemic caused fear of the disease. Animal therapy is treatment with animals. It uses the positive effect of the animal on the emotional and physical health.

Methods: At a time of pandemic crisis, animal therapy has become a useful tool for providing care. Human began to use the healing power of animals in various ways also in the way of telerehabilitation. Each client is approached individually according to what is expected of the method. With the gradual professionalization, two methods began to be used, which were animal-assisted activities and crisis intervention with the help of animals. Telerehabilitation enables therapy with animals without exposure to health risks and creates emotional support for the client. Interview with a professional therapist who uses his therapeutic animals during psychotherapy sessions and also advice for other online therapists.

Results: Patients are affected by the psychological effects of activating positive feelings, anti-stress or antidepressant mechanisms. Although the methods are similar in different ways, under the supervision of animal therapy teams and the intended goal of the work, animal therapy is transformed into a full-fledged supportive treatment. The goal of Animal Assistant Therapy is to improve the somatic, cognitive, emotional and social functions of the client. The results can be measured and objectively observed.

Conclusion: The application of animal therapy and telerehabilitation enables the whole therapy and has contributed to the cognitive telerehabilitation process and to the intensification caused by this global

health crisis. The robotic animal uses artificial intelligence, computer simulation, until it recognizes new instructions. According to studies, computer simulation is about 1,000 times faster than in the real world (Verger, 2019).

Key words: Pandemic Covid-19. Animal therapy. Telerehabilitation. Robotic animals.

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Benefits of robotic animotherapy

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Abstract

Introduction: Emotional connection is a basic human need. Robotic animals can offer a safe alternative to therapy involving real animals. There are many positives of using a robotic animal. When it's using a real therapeutic dog, there is a possible risk of causing an allergic reaction, possible bites or transmission of diseases. Robotic animals can be thoroughly cleaned and can work much longer than live animals. With today's modern technologies, it is also possible to create incredibly realistic imitations, with reflex movements and the behavior of a real animal, such as waving the tail, expressing "emotions" through sounds and colors, turning the ears towards the sounds and even sleeping or breathing.

Methods: Touch is one of the most commonly used forms of interaction. In addition, recent studies point to the benefits of tactile interaction in robotic therapy. People suffering from Alzheimer's disease or dementia are socially isolated groups who suffer from loneliness and depression.

Results: The result of using robotic animals as a form of treatment had a positive effect on other levels of stress, a higher immune system, improved mood and higher communication skills.

Conclusion: A study by the National Center for Biotechnology Information on the Use of Robotic Animals concluded that most older people enjoyed society with robots. Robotic animals have been found

to reduce the stress of patients and their carers, to stimulate interaction between patients and carers. They have been shown to have a psychological effect on patients, improving their relaxation, motivation and socialization of patients with each other.

Key words: Robotic animals. Touch. Interaction. Therapy.

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Possibilities of using ozone therapy in post-Covid syndrome

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Abstract

Introduction: Ozone therapy combines a mixture of oxygen O₂ and O₃ with different therapeutic administrations. The coronavirus attacks various tissues mainly through a cytokine response that leads to decreased plasma, vascular permeability and disseminated intravascular coagulation. One of these cytokine responses is high plasma levels of pro-inflammatory cytokines, which damage especially lung and even nervous tissue. The uncontrollable release of cytokines leads to a "cytokine response"

resembling a systemic response syndrome, which is associated with other viral and bacterial infections due to dysregulated immunity, which ultimately leads to multiorgan failure and death [1]. One preclinical and clinical approach to support the potential roles of ozone therapy in preventing and controlling cytotoxicity caused by most drugs and diseases, including viral diseases [6]. Protect against common coronary syndromes and ischemia damage that occur in the lungs of patients with COVID-19 [7].

Methods: We examined the latest literature on the use of ozone therapy in COVID-19 infection as well as from our own experience. Repeated ozone treatment makes it possible to induce a gradual oxidative stimulus that produces the synthesis of endogenous antioxidants and induces homeostasis of the antioxidant environment [1]. Antioxidants are important for maintaining cellular integrity and cytoprotection. Adaptation to oxidative stress and cellular redox imbalance is an essential process of inhibiting viral replication. Oxidative stress plays a key role in hand injuries that control the severity of primary cytotoxicity during periods of viral infections. Oxygen-ozone therapy improves oxygenation, especially in weakly oxygenated tissues. Treatments with SARS CoV-2 are prone to mild non-specific hepatitis, motile fibrosis, failure of the safe, nervous system. There is extensive research that has demonstrated the cytoprotective effect of ozone on the prevention of oxidative heart disease, working with the kidneys and kidneys [2].

Results: Ozone therapy has biological properties that could allow its use as an alternative treatment in various stages of SARS-CoV-2 infection as well as in post-covid syndrome. Useful properties in ozone treatment are mainly support of blood circulation - ischemia of the central and peripheral circulation, immunomodulatory effect, energetic effect of the organism, regenerative and reparative properties, correction of chronic oxidative stress. There is a growing interest in new strategies that may represent therapeutic targets for minimizing the consequences of post-covid syndrome.

Conclusion: Proper dosing of ozone therapy is without side effects. Further clinical and experimental studies will be needed to determine optimal dosing and evaluation regimens by combining ozone therapy with other therapies in order to increase the effectiveness of treatment.

Key words: Ozone therapy. Antioxidant system. Stress oxidative biomarkers. Post covid syndrom.

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**Pharmacoeconomic justification of vaccine refundation for cervical cancer
for the conditions of Republika Srpska**

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Abstract

Introduction. Cervical cancer is one of the leading causes of death in women in Republika Srpska, Bosna and Hercegovina. Cervical cancer is caused by the human papilloma virus. Numerous cost-effectiveness studies have shown that the use of the HPV vaccine, along with regular screening, is the most cost-effective method of preventing cervical cancer. Our goal was to assess the cost-effectiveness of placing a tetravalent HPV vaccine on the positive list of the Republika Srpska Fund through a pharmacoeconomic analysis of cost-effectiveness, for the conditions of Republika Srpska.

Method. We performed a pharmacoeconomic analysis from the aspect of the Health Insurance Fund, where we compared two strategies - a strategy with vaccination and without vaccination, on the entire population of 12-year-old girls, without revaccination after 10 years. We used the TreeAge software and

the Mark model to create a cost-effectiveness analysis. There were 12 health conditions in the model that were analyzed over 70 cycles of one year each. We presented the result as an incremental cost-effectiveness ratio (ICER) per year of quality-adjusted life (QALY).

Result The Strategy is cost-effective for conditions in Republika Srpska, with ICER values of € 8,951.11 / QALY what is below the limit of willingness to pay (€ 14,315 / QALY). **Conclusion:** Reimbursement of the vaccine against human papilloma virus is cost-effective for the conditions of middle developed countries such as Republika Srpska, Bosnia and Herzegovina.

Keywords: HPV vaccine. Pharmacoeconomic analysis. Mark's model. Serbian republic.

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Pain management in the geriatric patient: mistakes and intolerance to analgesic use

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Abstract

Introduction: Rational pharmacotherapy of pain in the elderly is a most important issue. Pain and its management, posing a global challenge to the medical and nursing professions and requiring a sensible and intensive approach, has major social and economic consequences.

Core: Factors to be considered before selecting proper pharmacotherapy and initiating therapy per se include the patient's age, their clinical status, potential drug interactions, side effects and efficacy of prior therapy. Untreated or inadequately treated pain has a marked adverse impact on the patient's quality of life. Comorbidity, polypharmacy and frailty of the elderly patient all require greater caution in medication selection. Additionally, pain management carries a potential risk related to physiological alterations in terms of changes in the function of organs of elimination and, also, increased CNS susceptibility to sedative agents (opioid analgesics, co-analgesics).

Conclusion: The medication suitable for pain management in the elderly patient includes metamizole and paracetamol associated with a low incidence of side effects.

Keywords: pain – pharmacotherapy of pain – elderly patient – metamizole – paracetamol

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Conflict of interest: none

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An attempt to objectify the child's functional diagnosis in the first 3 months of life

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Introduction

Neurological disorders pose a serious threat to the proper development of a child. As with any disorder, the earlier it is noticed, the better the prognosis for the patient. Early detection of neurological dysfunctions allows for quick initiation of appropriate therapy, increasing the chances of proper motor functioning. The available and currently used diagnostic methods are largely subjective, based on the knowledge and experience of the therapist.

Objective: The aim of the lecture is to present a method supporting the assessment of infant asymmetry in terms of the quantitative assessment of the positioning preferences and movement abilities of an infant based on a video of its spontaneous activity.

The proposed parameters of the newborn's motor assessment in the first months of life with the use of the machine learning method will be presented.

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The effects of neurorehabilitation of a patient with lower limb paresis as a result of continuous epidural analgesia - case report

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Abstract

Introduction: Continuous epidural anesthesia significantly reduces the intensity of postoperative pain. Adverse neurological sequelae, including lower limb paresis after this type of analgesia, are extremely rare.

Case report: 33-year old patient was admitted to the Ward of Neurological Rehabilitation (WNR) with paresis of lower limbs to a considerable, which occurred in the first day after surgery insulinoma G1. Muscle weakening of the lower extremities (initially II on the Lovette scale) was accompanied by paresthesia from the Th10 level. Differential diagnosis was performed, including MRI (magnetic resonance imaging) of the TH segment, L-S segment and pelvis, as well as the study of nerve conduction in both lower limbs. Finally, the patient was diagnosed with iatrogenic inflammation of the tissues around the spine as a complication after continuous epidural anesthesia. At the time of starting treatment in WRN, the patient was on the twentieth day after surgery and the onset of neurological deficit. Physiotherapy with the use of the PNF (Proprioceptiv Neuromuscular Facilitation) method, the sEMG robot (surface electromyography) and the system for gait reeducation Ostium were applied. Individual work with the patient based on the PNF method was carried out on each treatment day for up to 90 minutes each time. Training with the sEMG robot lasted up to 30 minutes, 5 times a week and consisted of CPM (Continuous Passive Motion) program and EMG-triggered exercise for the quadriceps muscles of the thigh. Gait re-education in the unloading system was introduced from the 3rd week of stay, 5 times a week. The patient started training from 10 minutes, then up to 30 minutes. At the same time, pharmacological treatment was carried out (Methylprednisolone, vitamin solution (B1, B6, B12), Galantamine, Pregabalin). During the 5-week stay, a satisfactory improvement was achieved in functional tests: Balance In Sitting (initially level 1, after therapy level 4), Standing Balance (initially 0 points, after therapy 4 points), Barthel Scale (initially 45 points, after therapy 85 points).

Conclusion: Individual physiotherapy neurological using robotics with pharmacotherapy introduced at an early stage, they bring satisfactory effects in the treatment paraparesis of lower limbs.

Keywords: neurorehabilitation, EMG robot, lower limb paresis, continuous epidural analgesia.

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An artificial light at night impact on sleep quality of inhabitants of Siechnice commune (Lower Silesia, Poland)

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Abstract

Introduction: Light pollution is a phenomenon involving excessive artificial light at night (*ALAN*). As more and more studies show, it has a negative impact not only on the quality of astronomical observations of the night sky, but also on the natural environment and the health and life of many species of animals, including humans. In people exposed to artificial lighting at night, disturbances in the circadian cycle, sleep deprivation, depressed mood and more frequent occurrence of diseases such as depression and cancer (e.g. breast or prostate) have been observed. The aim of the study was to check the effect of artificial light emitted by greenhouses on the sleep quality of inhabitants.

Material and methods: The research was carried out using the online Google form via the Facebook community of 'Forum Siechnice'. 259 people (63 men) - residents of the Siechnice commune participated in the study. Data were collected in two periods: 1) with artificial light exposition (October 1 - March

31, 2019/2020); 2) without artificial light exposition (April 1 - September 30, 2020/2021). The online survey consisted of the Pittsburgh questionnaire (*PSQI*) and the authors' own questions concerning, for example, the age of the respondents, the distance of their place of residence from the greenhouse or the stimulants use.

Results: There were no significant differences in the sleep quality of the respondents depending on the period of operation of the greenhouse (artificial light present/ not present). An interesting trend was noticed, consisting in the deterioration of the quality of sleep of inhabitants along with the increasing distance of their place of residence from the greenhouse, however, this relationship was not statistically significant. People declaring a negative impact of the light coming from the greenhouse on sleep had nearly twice the result of the *PSQI* questionnaire (worse quality of sleep).

Summary: The study did not show a clear effect of light pollution in the Siechnice commune on the sleep quality of the inhabitants. Worse results of the Pittsburgh questionnaire in people declaring an adverse effect of night light on their sleep may result from the individual circumstances of these people or constitute an apparent relationship resulting from the influence of other, unknown factors. Further, in-depth studies of the inhabitants of this commune in terms of the incidence of diseases (depression, anxiety, cancer) are necessary in order to more reliably check the impact of light pollution on their health..

Key words: *PSQI*; greenhouses; sleep deprivation; health

Funding/Conflict of interest:

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Diet therapy for children and adults with disabilities. Case study

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Abstract

Introduction: Proper nutritional status determines the proper development of the organism. In the presence of disabilities, the problem of nutrition is not an important element of therapy from the point of view of the caregivers of the sick person, hence the need for education and access to specialists for this group.

Material and Methods: Measurement of body height/length, body weight and body composition using BIA method, nutritional recommendations and menu, monitoring of the effects of the therapy.

This paper presents a case study of the effects of diet therapy on three patients with disabilities. The first patient is a 15 year old boy with spastic quadriplegic cerebral palsy, malnourished, where the goal of therapy was weight gain. The second patient is a 27 year old male with Beckwith-Wiedemann syndrome, obese, where the goal of therapy was weight reduction. The third patient was a 27 year old female with Down syndrome, obese, where the goal of therapy was weight reduction. Moreover, the results of a questionnaire conducted among parents of children with CP and parents of healthy children about the sources of knowledge on proper nutrition and the need to obtain it were presented. As the graph indicates, it is necessary to provide access to nutrition specialists for parents of children with CP.

Results: Each case discussed demonstrated the effectiveness of the diet therapy undertaken.

Conclusion: Diet therapy has proven to be successful despite the difficulties due to the special group of patients and the problems they face on a daily basis. Understanding of the patient and correct assessment of his/her abilities to implement the recommendations brings results.

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Ethical reevaluations and dilemmas of the pandemic as challenges for the medical profession

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Abstract

The time of the pandemic causes - as current and pressing - ethical redefinitions and dilemmas in various areas of human activity. In particular - some very clearly - among these reevaluations and dilemmas, those that pose challenges for the medical profession in a pandemic condition. They require recognition, reflection and learning the right ways to act in order to "first do not harm" and, above all, optimally - as much as possible - help effectively.

Keywords: pandemic, ethics, ethical dilemmas

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Advertising, Marketing, Public Relations and Investment in Medical Care Centres (MCCs)

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Abstract

Introduction: The medical care centre has become a well-established medical structure in Germany. Aspects of the advertising and financial control have created whole new professions, both in the consultation and the concrete implementation of these fields of expertise. In Germany, medical care centres are a focal point in considerations of processes in the area of medical economics.

Objectives: The medical care centre with its future-proof structure is now an integral part of these fields of expertise, and it can almost be said that the playing field that applied for single-handed and group practices before 2004 is now a thing of the past. Aspects of marketing, but also other business areas gain in importance.

Methodology: Looking through recent literature reveals that there is currently a knowledge market on the topic of the 'medical care centre' and also a broad and active range of consultation services. Recommendations for action for medical care centres are to be derived on the basis of research into scientific articles and careful analysis of the facts.

Results: Stakeholders in medical care centres need to focus on advertising, marketing, public relations and financial control and investment considerations to survive the fierce competition in the medical field.

Conclusions: Those who simply bury their heads in the sand and choose to believe that things will carry on as before may be in for a rude awakening, particularly when it comes to current healthcare policy issues that need to be addressed professionally.

Key words: advertising, marketing, medical care centre/s, future-proof structure, fields of expertise

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**Ambulant rehabilitation for post-COVID-19 convalescents overcoming
SARS-CoV-2 virus infection, the role of physiotherapy**

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Abstract

Introduction. The SARS-CoV-2 virus caused a global pandemic and spread worldwide. There are mild symptoms in virus typically infected the individuals, including fever, cough, fatigue, dyspnoea, and loss of smell and taste. People who have been diagnosed with the disease in the past have suffered chronically from much more serious infections, most often having to be hospitalized and undergoing intensive medical care. Pathological changes have occurred in many organs that impair body functions.

Research aim. It is worth to identify the place and role of physiotherapy in the comprehensive rehabilitation of post-covid patients, to focus the intervention on the basis of scientific evidence in order to achieve an effective impact and help them to return to the maximum level of mental and physical health.

Core of the work. The main goals of ambulant rehabilitation including SARS-CoV-2 recovery is based on the actions to mitigate the consequences of respiratory and circulatory failure, the effects of immobilization and treatment of functional complications. Accurate health assessment will allow to take appropriate therapies as well as its effects. Self-assessment questionnaires, condition and fitness tests may be used. However, the main goal of comprehensive outpatient rehabilitation is to improve the quality of life and restore general psychophysical fitness to the level before the coronavirus disease. In the study, the authors proposed basic ambulant physiotherapy treatment for post-covid-19 recovery of the convalescents.

Conclusion. Physical exercise and physical activity have been adopted as a public health strategy to alleviate the worsening of symptoms of viral infection and return to maximum possible psychomotor

performance as soon as possible. Early comprehensive rehabilitation can effectively limit the accumulation of pathological changes and return to full activity. Physiotherapeutic care should also support physical activity in various forms and a healthy lifestyle.

Keywords: SARS-CoV-2 virus, convalescents, outpatient/ambulant rehabilitation, physiotherapy, occupational therapy

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**Utilization of artificial intelligence and virtual reality for neurodegenerative diseases
and post-COVID syndrome**

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Abstract

Introduction: The most common neurodegenerative diseases include Alzheimer's disease and Parkinson's disease, which are often determined by neurological and psychiatric examinations using various ancillary examinations such as MRI, PET, speech and visual examinations. Finally, we will show how to use rehabilitation using virtual reality for additional treatment in these neurodegenerative diseases.

Material and Methodology: Alzheimer's disease (AD) manifests itself most in terms of significance in semantic, syntactic and phonetic speech. In patients' speech, manifested at the semantic level by word search, word correction, and repetition. At the phonetic level, speech in patients with AD is mainly characterized by low speech rate and frequent hesitation. Parkinson's disease (PD) is often associated with motor speech impairment that affects phonation, articulation, and resonance, detected mainly by variables related to pause duration and change in prosody. Language deficits include syntactic processing, especially verb generation. The most common for the detection of these diseases are tasks for reading, conversation and standardized tasks for describing images with one noun or verb, respectively. a more detailed description of the image, such as the "Cookie Theft" image from the Boston Test. In addition to sound recording, it is also possible to record the movements of the patient's hand using a mobile phone (Ružický et al. 2020). For automatic detection, a mobile application for early detection of neurodegenerative diseases has been developed for speech data collection. A speech

recording system using image naming and image description similar to that used for the "Cookie Theft" image was designed. In the following steps, we will describe the procedure for detecting AD and PD:

1. Persons diagnosed with AD and PD disease were admitted for sound recording at neurological clinics. All necessary available image information such as MRI, SPECT, etc. are used for diagnosed patients. Two tests are also performed: the Montreal Cognitive Test (MoCA) and the Beck Depression Inventory Test (BDI). According to the above image description scenario, MOCA and BDI tests are also recorded for the control healthy population.
2. Sound recordings were segmented using specialized software for speech and sound processing developed at the Institute of Informatics of the Slovak Academy of Sciences in Bratislava. As it was found, automatic speech and sound analysis can detect subtle changes in the voice of people with neurodegenerative disease. The obtained data are evaluated by artificial intelligence algorithms by comparing samples of patients with AD, PD and control healthy groups and thus distinguish these diseases.
3. For patients with neurodegenerative diseases, we provide rehabilitation using virtual reality. In a previous study, we analyzed the possibility of rehabilitation for patients after a stroke (Sramka et al. 2020). These results can be similarly used in the telerehabilitation of patients with neurodegenerative disease.
4. COVID-19 has affected the whole world and has not only economic but also serious health consequences. Although vaccination against the virus reduces the number of diseases, new variants of the virus also threaten the vaccinated population and the number of hospitalized patients is still increasing. WHO draws attention to the effects of COVID-19 on the central nervous system, so we are looking for new treatment options for patients with post-COVID syndrome. Similar to neurodegenerative as well as patients after long-term hospitalization, we designed treatment using new approaches implemented through virtual reality. How to use motor, sensory, psychological and cognitive rehabilitation, respectively telerehabilitation, respectively, for an optimal individual approach to patients (Ružický et al. 2021; Šramka et al. 2021).

Results: The results show that the detection of neurodegenerative disease by automatic analysis of people's voice and speech can be achieved with an accuracy of approximately 90%. It is important that patients with possible PD and AD are caught. Artificial intelligence algorithms for these patients have an accuracy of about 92%, which, according to the above clinical findings, is a success rate comparable to qualified neurologists. We have proposed adjunctive therapy for patients with neurodegenerative disease as well as for patients with post-COVID syndrome using virtual reality correcting motor and cognitive deficits, which improves the course of treatment in elderly patients at home.

Conclusion. The mentioned procedures of early detection and rehabilitation using virtual reality point to significantly new innovative procedures that can also be applied in clinical practice. In previous approaches, we have focused mainly on Alzheimer's and Parkinson's disease, in the future we will monitor other neurodegenerative diseases and procedures for additional rehabilitation supporting the treatment of these patients. We proposed monitoring of patients with acute post-COVID syndrome, especially from a neurological and psychological point of view, and prepared a new way to rehabilitate the motor and psychological consequences of patients using virtual reality and artificial intelligence for optimal treatment of patients.

Keywords: Neurodegenerative diseases, COVID-19, Central nervous system, rehabilitation, virtual reality, artificial intelligence

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Pesticide Pollution in Vojvodina, Serbia

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Abstract

Introduction. High concentrations of pesticides in the environment, particularly in surface waters can significantly influence the health of wild animals, and humans. Pesticides, used in high concentrations particularly in agricultural area are therefore of a significant public health concern. Serbia is a moderately developed, south European country in transition, with a long tradition in agriculture, particularly in the northern part, Vojvodina. Our study aimed to assess the presence of pesticides in the district of Backi

Petrovac, Vojvodina, agricultural area unencumbered by heavy industry, where the majority population are Slovak.

Material and methods. Water samples were analyzed from canals, ditches, fish from the canals and wild animals caught in the Backi Petrovac district. Results. We identified nine pesticides in water samples. Of all detected pesticides, one was a hormonal disruptor. There were no pesticides in animals, fish and organs in a concentration above the limit of detection (LOD) in observed periods.

Conclusions. Based on the obtained results, we concluded that in the developed agricultural region unencumbered by heavy industry, pollution by pesticides can be controlled. This area, unpolluted by pesticides are very valuable, because they can be used for organic production.

Keywords: pesticides; concentration in superficial water; whole bodies of fish; organs of wild animals

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Social service community center with its sustainability in the field of financing and quality

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Abstract

Introduction: Sustainability of community centre social service has been a prominent issue among professionals. So far, systemic support has been provided from European structural funds through national and demand-oriented projects focusing on support, development, renovation or construction of community centres. Such funding will not be sufficient in the long-term and it is necessary to find other systemic and sustainable ways of funding from multiple sources. Community social work in Slovakia, which is irreplaceable in the development and efficiency of social services, to a great extent, depends on the sustainability or expansion and increase in accessibility and quality of the standardised professional activities provided through community centre social service.

Core of Work: In the current situation of the only support of the social service community center in the form of European structural funds, the situation is not so burning, but in the coming years and the period after the end of support from national projects it is not clear how the sustainability of social center funding will be ensured. There are significantly more public providers of this social service involved in national projects. The non-public provider has the possibility of multi-source financing (2% of taxes, donations and contributions, other funds, etc.), unlike the municipality, it lacks basic fixed capital. The

municipality is connected to the tax system, which means a relatively stable financial budget, but it is not set up for direct financing of this social service and has considerably fragmented possibilities of multi-source financing, if the possibility of drawing from European funds is not taken into account.

Conclusion: Existing community centers are currently dependent on EU funding, the participation of providers in funding is minimal, and includes in particular overheads, meal vouchers, etc. Dependence on Eurofunds poses a major risk to the long-term sustainability of support programs in the current scope and quality. Project financing of support programs is a non-systemic solution, which depends on allocations in each new programming period, project cycle and on negotiations with the on European Commission.

Keywords: Social service. Crisis intervention. Community centre. National projects. Social work.

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Pulmonary etiology of destabilised blood pressure. Case report

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Abstract

Introduction: The authors present a case of a 60 year old woman with headache and vomiting associated with accelerated blood pressure values.

Core of work: Adjustment of antihypertensive treatment and decrease of blood pressure does not reduce the sensation of headache. The laboratory results findings of hyponatraemia, hypochloridaemia, hypoosmolal plasma may lead to the side effects of accelerated blood pressure, such as vomiting (Hansen O, Sørensen P, Hansen KH. , 2010 , p. 111-4.). Completed blood work results in the suspicion of clinical picture of SIADH (Syndrome of inappropriate antidiuretic hormone secretion, Schwartz - Bartter syndrome) (Klener, P. et al, 2006, p. 819-845; Kolek, V. Kašák, 2010, s.251-282). In the differential diagnosis of SIADH further laboratory tests and imaging scans are supplemented (Lokaj P, Krivan L., 2008, p. 273-5). The finding of accented left pulmonary hilus on chest X-ray and CT scan, followed by the bronchoscopy, shows macroscopic lesions suspicious for tumour changes, later histologically confirmed small-cell lung cancer. The patient is referred for the oncological treatment, under which the clinical condition of patient (headache, laboratory results, blood pressure) is stabilized.

Conclusion: In the presented case report, the authors point out the need for thorough differential diagnosis, especially in elderly patients, smokers, although the initial symptoms do not yet force us to consider the pneumological cause of the problem (Marek, J.et al., 2010, p.345-346). Hyponatremia with hypochloridemia, destabilized blood pressure values unresponsive to the administered treatment must be a reason to reflect on the etiology - in a broader differential diagnosis, a chest X-ray must also be performed in any unclear case.

Keywords: headache, hypertension, SIADH, SCLC, paraneoplastic syndrome

Conflict of Interest: None.

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Screening of the breast cancer in Slovak republik, pilote program

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Abstract

Introduction: In 2018, the Government of the Slovak Republic approved the National Oncology Program for the first time. In the year 2019 was declared by the Ministry of Health of the Slovak Republic as the Year of Prevention, by which solid conditions were created for Slovakia to be included among the advanced European ones. Countries in which there are organized screening programs for selected oncology disease is one of the basic measures of the country's level of health care. In January 2019, new standard procedures for the performance of prevention for mammography came into force screening. The first phase of the screening program was carried out in Slovakia from January to October 2019. In September 2019, a nationwide organized mammography was also launched screening, which with a three-month break in 2020 (April-June), continues. In working groups for individual screening programs have developed methodological procedures for invitations, reporting of codes of procedures and diagnoses, together with patient organizations, in cooperation with the Ministry of Health of the Slovak Republic. Experts have also prepared a plan for media activities to raise awareness of the need for population screenings.

Material and methodology: In 2019 and by the end of June 2020, data were collected from 16 verified ones screening mammography workplaces according to the valid standard procedure. In this In the analysis, the data from 3.9.2019 to 30.6.2020 from all workplaces were summarized. When evaluating screening mammography, the standard BI-RADS classification is used. BI-RADS 1 that result examination is negative; BI-RADS 2: the test result is benign; BI-RADS 3: the result is probably benign; BI-RADS 4: the result is probably malignant and BI-RADS 5: the result is malignant.

Results: From the beginning of mammographic screening until June 30, 2020, it was screening together 34,842 mammographic screening participants were examined by mammography, which is 9.6 percent examinations from the entire screened population of women aged 50-69 years. They are published further in the text numbers of examined women and relative participation in individual regions and

districts. Detected malignancies and their stage: In the observed screening period, 34,842 were examined women, a total of 229 cancers were detected (hereinafter) predominantly in the early stages.

Discussion: Breast cancer is one of the most common malignancies in women worldwide in terms of incidence 47.8% and mortality 13.6% (<https://gco.iarc.fr/>). It is estimated that in 2020, within the EU-27, breast cancer reaches 13.3% of all newly diagnosed cancers and also forms 28.7% of all cancers in women. https://ecis.jrc.ec.europa.eu/pdf/Breast_cancer_factsheet-Dec_2020.pdf According to the latest published yearbook, the incidence of cancer has increased in Slovakia in 2011 up to 2,800 new cases, with locally advanced and metastatic disease almost 30%. (Incidence of malignant tumors of the Slovak Republic 2012, NCZI 2021) .

Conclusion: The overall participation of women in mammography screening is relatively low. It is given by several factors: individual verified screening mammography workplaces entered the screening continuously until December 2019; in 2020 it stopped for 3 months, as well as reduced attendance COVID-19 pandemic workplace. There is no address system in Slovakia invitations. Only women who did not participate in the previous mammography at all were invited or more than two years before the start of mammography screening as well as women who are being treated with a diagnosis of breast cancer. The onset is therefore estimated to be gradual and lasting several years until we reach the recommended participation rate of 70-80 percent. It is estimated that about 20 - 30 percent of women in Slovakia graduate unverified mostly mamodiagnostic workplaces preventive mammography, which is the so-called gray or opportunistic

Key words: Breast cancer. Screening, mammography, pilote program

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**Physical activity and kinesiophobia and the effectiveness of rehabilitation
of people with Multiple sclerosis**

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Abstract

Introduction: Multiple sclerosis (MS) is a chronic disease of the nervous system, so far incurable. Disturbance of nerve impulse transmission results in increasing limitations in the functioning of affected

individuals . Previous researches suggests that physical activity (PA) may be one of the effective approach to slowing disease progression. A problem in presenting optimal PA is the fear of movement - kinesiophobia. Investigating the scale of this problem and its determinants may consequently improve the level of PA, contribute to slowing disease progression, and benefit the quality of life of people with MS.

Methods and Material: A group of 83 MS patients aged 20-70 years (median: 42 years) was included in the study. The disease duration: 1-43 years (median: 12 years). The research tool was a survey questionnaire. Metric data on aspects of functioning, rehabilitation, and PA were collected. The level of kinesiophobia was examined using the Tampa Scale - TSK.

Results: The median TSK was 38 points. The majority of patients - 58 people (69.88%) benefited from rehabilitation. Disease duration correlated with disability ($r = 0.553$) and PA ($r = -0.419$). TSK correlated with disability ($r = 0.492$) and activity ($r = -0.422$). Rehabilitation recipients had higher disability ($p < 0.001$), higher TSK ($p < 0.05$) and lower PA ($p < 0.05$) than non-rehabilitation recipients.

Conclusion: Increased kinesiophobia is associated with low levels of physical activity and reduced performance in MS patients. The use of rehabilitation positively influences the health status of MS patients.

Keywords: kinesiophobia, multiple sclerosis, physical activity

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Quality of life women after mastectomy

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Abstract

Introduction: Breast cancer is the most common cancer that occurs in women. There are many reasons for getting sick. The most common of them are: age 50 -69, genetic burden or unhealthy lifestyle. The choice of the method of breast cancer treatment depends on its stage, its extent and the presence of metastases. Surgical removal of one or both breasts, called mastectomy, is still the most common treatment for cancer, but also an effective prophylaxis. Patients struggling with breast cancer are exposed to various new situations in which they have to find themselves.

Material and Methods: A total of 100 women were enrolled in the study and assigned to three age groups. Women after mastectomy were included in the study. The survey in the form of a survey was posted on the: amazonki.net online forum and was conducted with anonymity. The SF-36 questionnaire was used to assess the quality of life.

Results: When analysing the mean (M) and standard deviation (SD) of points in individual aspects of the quality of life of the respondents, a slight downward trend can be noticed depending on the passage of years of the surveyed women. In terms of physical well-being (RP), pain perception (BP) and general health (GH) the lowest score was obtained by women aged 61-77 years, while the highest scores were obtained by women aged 23-49. In the mental component of health, the results of the respondents showed a great similarity. The surveyed women living in the city received better scores than the surveyed women living in the countryside. Moreover, it was shown that the type of work performed and post-operative rehabilitation had an impact on the quality of life of the examined women.

Conclusions: A mastectomy performed reduces women's quality of life, affecting their general health, physical well-being and pain perception. The age and type of work performed have an impact on the quality of life of women after mastectomy. Surgical rehabilitation has contributed to a better quality of life improving their physical and mental fitness.

Keywords: mastectomy, quality of life, surgical rehabilitation.

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Reasons for stimulants and addictive substances usage in nurses community

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Abstract

Introduction: Stimulants and addictive substances might cause behaviour changes and have effect on perception of reality. One of the most common causes of these substances usage is a physical and emotional demandingness of the profession. Coping with demanding situations or emotions, elimination of pain, or suppressing tiredness affect in varying degrees usage of stimulants and addictive substances in healthcare environment. Nurses have to cope daily with plenty of tasks and take decisions what is connected with great load of responsibility.

Objective: To identify the most common reasons for stimulants and addictive substances usage in nurses community, with regard to physical and emotional demandingness of the profession and specifics of the job performance in the pandemic times.

Material and methods: The method of data collection was a non-standardized questionnaire of own construction, distributed electronically through the portal of the Slovak Nurses and Midwives Chamber and through three groups connecting nurses on a social network. The data collection took place from 20th January to 7th February 2021. The respondents' selection was intentional. The study included 513 nurses, with majority representation of women (95,3 %), while 40-50 years old nurses prevailed (36,3 %), working in institutional care (60,4 %). For results elaboration a simple descriptive statistics was used.

Results: Mental demandingness of the nurse profession (40 %) and physical load at work (15,8 %) are the main reasons why nurses reach for addictive substances. During working hours, they resort to coffee drinking (84,8 %), or smoking (24,8 %). They reach for addictive substances mostly at exceptional (26,5 %) or emotionally high-tensed situations (23,4 %) and stress (20,5 %). The coronavirus pandemic evaluated during the last half of a year since the data collection didn't bring any changes for 69,4 % of nurses regarding stimulants and addictive substances usage, although 11,1 % of nurses confirmed drinking of higher amounts of coffee and 7,4 % of nurses stated they smoked more.

Summary: Nurses reach for stimulants and addictive substances due to excessive mental burden, during stress and tensed situations. The coronavirus pandemic put higher loads on health care personnel, what resulted in higher intensity of stimulants and addictive substances usage in a part of nurses.

Key words: Addictive substances. Nurse work. Reasons for usage. Stimulants.

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Nervous system and Post-COVID syndrome

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Abstract

Introduction: At the beginning of the pandemic, there was information about olfactory loss, followed by reports of other symptoms such as headaches, confusion, hallucinations and delirium, depression, anxiety, affective disorders, fatigue and brain fog, and sleep problems. Neurological disorders occur in the central nervous system, the peripheral nervous system.

Core of work: Neurological symptoms usually occur with the onset of respiratory symptoms preceded by cough and fever with irritability, confusion, and decreased consciousness, sometimes associated with seizures, psychotic symptoms and renomination. Encephalitis, such as inflammation of the brain parenchyma caused by infection or the body's immunity, has been described in association with COVID-19 infection. Like encephalopathy, changes of personality, behaviour, cognition, consciousness disorder, delirium, or coma. In patients with encephalopathy and COVID-19 who do not have encephalitis, it may be caused by hypoxia, drugs, toxins, and metabolic disorders. Acute disseminated encephalomyelitis, multifocal demyelinating syndrome, acute haemorrhagic necrotizing encephalopathy and myelitis, include Guillain-Barré syndrome, acute polyradiculopathy with progressive symmetrical limb weakness and sensory disorders, loss of sensitivity, facial nerve impairment, dysphagia, ophthalmoplegia, ataxia with areflexia, acute vestibular syndrome rhabdomyolysis, Miller-Fisher syndrome included among other neuropathies. Neurological symptoms with changes in magnetic resonance imaging (MRI) of the brain have been reported eight months after infection. They may occur in the absence of other clinical symptoms. SARS-CoV-2 virus was thought to enter the brain along the olfactory nerve and the symptoms were related to the brain inflammation. High-resolution post-mortem MRI with COVID-19 confirmed microvascular damage and fibrinogen leakage in the brain. Clots, inflamed epithelium and barrier leaks can contribute to brain damage associated with COVID-19. Inflammatory signals can change the way the brain creates neurotransmitters – serotonin, norepinephrine and dopamine, which help nerve cells communicate. The relationship between inflammation and mental illness in athletes was confirmed by repeated blows to the head. Similar evidence suggests that people with depression have high levels of inflammation. After a year of the pandemic, depression and anxiety are on the rise. Fatigue is dependent on conditional and physiological factors. Conditional dependency comprises the task, environment, and physical and mental capacity of individuals, while physiological factors include central, psychological, and peripheral aspects. This increase can be particularly sharp in people who have had stressful diagnoses, illnesses and isolation. From the current publications dealing with the post-covid situation, it is important to identify the possible consequences of COVID-19 such as post-covid syndrome, neurotic post-traumatic and neurodegenerative diseases, loss and reduction of cognitive functions. The pandemic is a serious health and socio-economic problem.

Keywords: COVID-19 pandemic, nervous system disorders, mental health, Post-covid syndrom

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Interventions leading to increasing the health literacy of diabetics

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Abstract

Introduction: Health literacy is an actual theme in the society. Its meaning has been growing worldwide and it becomes the instrument of support in the healthy society. Health literacy enables people to understand, evaluate and to apply informations relating to health in daily life. It includes the prevention of diseases and support of health for the use of preservation of life quality. Diabetes mellitus is a chronic disease where the main non-pharmacological medical procedure in the care about the patient belongs education. The nurse educates in new habits and skills of care about her own health. She uses an individual access to the patient.

The core of work: Knowing the disease of Diabetes mellitus in the common population is different. The education of diabetes becomes not negligible part of all embracing cure. The diabetic becomes the partner in cure and goes over the bigger part of responsibility for his health. The success of diabetes and the development of complications depend on the patient attitude to the disease, willingness to respect the doctor's and nurses' recommendations.

It is right to provide support to the patient, to develop his abilities and responsibilities. It is expected the patient will be able to modify his behaviour for reaching of therapeutic goals and to improve the quality of his life.

We hold the opinion that the matter of health literacy touches all spheres of life and it has a high priority in health risks.

Conclusion: Health literacy is one of the ways how to reach the optimal health. Low level of health literacy manifests itself in higher pathological nature, in higher incidence of chronic diseases, and last but not least in higher economic strain.

Key words: Health literacy, Diabetes mellitus, education

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**Prevention against expression of extremism implemented through critical thinking
in time of pandemy COVID-19**

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Abstract

Introduction: We live in a period of unprecedented availability of a huge amount of information, everyone is online, always and everywhere. Information and media literacy is one of the key skills in the digital age. Especially with the help of modern technology, we can get information about almost anything in a few minutes. However, this information varies in quality and is often very difficult to access up-to-date, factually accurate and reliable sources. The wider social context of the information age also calls for the dissemination of false and misleading information. The Internet and social networks are becoming an increasingly important source of news. A breeding ground is being created for the dissemination of false and misleading information

- whether misinformation, propaganda, conspiracies, hoaxes or false and conspiratorial messages with characteristic elements of manipulation. Manipulation through these messages may not always be unambiguous and easily detectable.

The aim of the lecture is to point out the need for primary change in the educational environment. What are the impacts on the youth of the social environment, the degree of moral responsibility of the individual, the values in the family. In the lecture we consider effective educational methods in working with youth.

Methods and methodology of data processing: We have chosen a quantitative approach to research. We consider the quantitative method to be sufficient and to be the most commonly used for data collection in research. In the header of the questionnaire, we tried to briefly and concisely inform the respondent about aspects of the importance of its distribution. With the questions in the questionnaire, we tried to find out, based on the answers, the possibility of spending free time of young people and their personal involvement in activities in society. We processed the data through the Statistic Package for Social Sciences.

Results: The evaluation of the questionnaire through our chosen program is in the form of tables. The data are processed and sorted in the first instance, the data is shifted to univariate analysis. Mathematical and statistical data provide us with different classifications. Inference statistics On the basis of random selections, we tried to generalize the data that apply to the widest possible group of product subjects, we looked for statistical dependencies between two variables whose value changes. We realized the dependence between numerical detection and the occurrence of certain phenomena based on the number of probabilities by searching and sorting empirical data. Our chosen analysis provides a wider range of conclusions.

Conclusion: At the time we started thinking about the lecture, why we want to focus on critical thinking, when we considered what arguments to emphasize to emphasize the urgent need to introduce more critical thinking into education, that the results will be 95% probable . At that time, we had no idea that a virus would come that would equal us in the fact that it did not choose who we were, what our social status, political ambitions, artistic inclinations, age. However, what exacerbates the brilliant pandemic are social disparities, becoming a fairly effective weapon in the hands of extremist groups. The covid 19 pandemic raises concerns about one's own health, and the health of loved ones is an excellent tool and a breeding ground for the rise of conspiratorial and manipulative techniques of extremist groups.

Keywords: Critical thinking. Prevention. Extremism. Swallowing. Information. Hoax

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Physiotherapy and its use in the treatment of patients after total hip arthroplasty

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Abstract

Objective: The pilot study objective was to evaluate the effect of comprehensive post-operative physiotherapeutic treatment on the selected physiotherapeutic parameters after a total hip arthroplasty.

Patients and methods: Forty patients after total hip arthroplasty were enrolled into the pilot study. The patients underwent comprehensive physiotherapeutic treatment to increase muscle strength, range of motion, to reduce post-operative swelling of thighs. Prior to the physiotherapeutic intervention, we carried out the following physiotherapeutic examination for each patient - muscle test, trigonometric examination, measuring the circumference of the lower limbs. To compare the figures, we used statistical tests which were evaluated on the significance level $\alpha(p) = 0.05$.

Results: After completing the physiotherapeutic processes, we have observed among the patients who underwent a total hip replacement surgery, a significant increase in muscle strength as with the flexors as well as the abductors ($p = 0.001$), improvement in their range of motion in hip joint flexion and abduction in comparison to its range before treatment ($p = 0.001$) and post-operative swelling ($p < 0.001$), respectively.

Conclusion: Early post-operative physiotherapy treatment positively affects patients' general condition. In addition, it improves muscle strength, range of motion of the operated joint, reduces post-operative swelling.

Keywords: Total hip arthroplasty. Physiotherapy. Muscle strength.

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**Knowledge of the inhabitants of the Silesian agglomeration about strokes
as an important element of prevention**

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Abstract

Introduction: Heart attack and stroke are considered to be one of the most common causes of death in the world. In 2018, the highest number of stroke incidents in Poland (9,350 people) was recorded in the Śląskie Voivodeship. Prevention is the ultimate tool in stroke prevention. The aim of the study was to determine whether the age of the respondents is related to the knowledge of the inhabitants of the Silesian agglomeration about risk factors, first symptoms, prevention and the effects of stroke. Information was also collected on the subject of rehabilitation of patients after a cerebrovascular accident.

Materials and methods: A total of 224 people (F-119; M-105) - inhabitants of the Silesian agglomeration were examined. The subjects were assigned to one of three age groups: I: 18–25 years, II: 26–50 years, III: 51–75 years. The research tool was the original questionnaire. The research was carried out using the direct method and with the use of an internet platform. People with medical education and with a history of stroke were excluded from the study. The Bioethics Committee of the Medical University of Silesia in Katowice issued an opinion that the project does not require a separate application (PCN / 0022 / KB / 169/20).

Results: Studies have shown that the age of the respondents is not related to the knowledge of risk factors ($p = 0.61$), first symptoms of stroke ($p = 0.33$), prevention ($p = 0.69$) and the effects of stroke (0.06). Over 90% of respondents in each age group indicated rehabilitation as an important element of treating patients after stroke.

Conclusion: Knowledge about strokes and rehabilitation is not related to the age of the inhabitants of the Silesian agglomeration. Moreover, its level is insufficient. This proves the need to undertake preventive programs in each age group.

Keywords: stroke, prevention, Silesian agglomeration, physiotherapy.

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The effect of COVID-19 on sleep quality in adults - a preliminary study

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Abstract

Introduction: The disease caused by the SARS-CoV-2 coronavirus (COVID-19) causes a number of symptoms, including the ones affecting the nervous system (such as loss of sense of smell or taste). Both hypoxia and the so-called "cytokine storm" occurring in the course of this disease contribute to the manifestation of negative neurological phenomena. The latest scientific reports, in addition to memory disorders, concentration and low mood, distinguish sleep disorders as one of the neurological complications after COVID-19. The probable cause of this relationship is damage to the brain centers that regulate the sleep process, although there are also indirect relationships: the impact of a pandemic

on increasing the level of stress and anxiety, more frequent occurrence of social isolation or intensification of depression at this time may indirectly cause sleep disorders in adults.

Material and methods: The research material consisted of the results of the Groningen Sleep Quality Scale of 142 adults (36 women), collected in June 2021 at the sports clinic at the Academy of Physical Education in Katowice, Poland.

Results: 42 people from the study group suffered from the disease caused by the coronavirus. There were no differences in the quality of sleep last night between COVID-19 survivors and healthy controls. Sex was not a factor in determining sleep quality. The time that has passed since the coronavirus infection did not affect the sleep quality of the respondents.

Summary: The study did not show any significant effect of the disease caused by *SARS-CoV-2* virus on the quality of sleep last night (as measured by the Groningen Sleep Quality Scale). Both sex and the time that have passed since the onset of the disease did not differentiate the group in terms of sleep quality. Further research should include a larger sample and more diverse tools for studying sleep quality.

Key words: Groningen Sleep Quality Scale, coronavirus, neurological symptoms.

Funding / Conflict of interest: There are no known conflicts of interest associated with this study and there has been no significant financial support for this work that could have influenced its outcome.

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**Competence support for women serving a sentence of imprisonment together with children
in the scope of fulfilling of maternal duties**

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Summary

Motherhood is a special form of social relationships that are implemented throughout life. In the Polish penitentiary system, with the consent of the court, the mother may serve the sentence of imprisonment together with the child. The presence of a child is considered to be a strong factor motivating a mother to rehabilitate - to restore to society a valuable member of the community who respects the legal order. The borderline age for a child to be in prison isolation is when he or she is three years old. Maternity duties performed in special environmental conditions are subject to multifaceted social assessment, resulting in rigorous supervision over the quality of childcare. The research was carried out in the Prison

in Krzywaniec - one of two penitentiary units in Poland where mothers serve a sentence of imprisonment together with children up to the age of three.

The purpose of the study was to assess the conditions for the implementation of maternal duties, supported by competences of officers of the Prison Service, through the prism of standard indicators of children's health.

Keywords: motherhood, imprisonment, functioning of children, competence and social support

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Meeting the mental health needs of clients in social service

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Abstract

Introduction: Every senior has their own life story, which is based not only on joyful but also painful events. The overall care of the guests must be based on the understanding of the person as a whole being and not on the evaluation of bodily changes. Fulfilling psychosocial needs can work to strengthen the whole physical health and to motivate further life.

Material and methods: An anonymous questionnaire was used to collect empirical data for nurses who for this purpose. The research sample consisted of 77 nurses working in social services facilities that are in direct contact with the client. The values of the standard deviation and the correlation coefficient have been used for the statistical evaluation.

Results: The greatest statistical significance has been proved by the values of the correlation coefficient of 1.00 that represent a direct dependence. They were found when examining the relationships between

unmet needs for safety and security, and aggression among clients, but also in the relationship between long practice nurses and their views on true communication. On the other hand, the lowest value of the dependence - the correlation coefficient -0.29 has been found between the education of nurses and their views on the strict definition of visiting hours.

Conclusion: The results of the survey correspond to the partial results of other surveys. In conclusion, we expressed the main findings from the assessment of the psychological needs of clients in social services facilities that they recommend for practice.

Keywords: Mental needs. Safety and security. True communication. Aggression. Social support.

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