



BANDIRMA
ONYEDİ EYLÜL
ÜNİVERSİTESİ



UNION OF THRACE UNIVERSITIES

V. INTERNATIONAL

HEALTH SCIENCES CONGRESS

ABSTRACTS BOOK



01-02 DECEMBER 2022

BANDIRMA - BALIKESİR / TÜRKİYE



UNION OF THRACE UNIVERSITIES
V. INTERNATIONAL HEALTH SCIENCES CONGRESS 2022
1-2 December 2022 / Bandırma – Balıkesir / Türkiye



UNION OF THRACE UNIVERSITIES V. INTERNATIONAL HEALTH SCIENCES CONGRESS

ABSTRACTS BOOK

Edited By

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01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE



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PREFACE

Dear Participants,

The Union of Thrace Universities was established by four universities (Kırklareli University, Çanakkale Onsekiz Mart University, Tekirdağ Namık Kemal University and Trakya University) in 2012, and Bandırma Onyedi Eylül University was included in this Union in 2018. One of the most meaningful and even wise steps taken by our university after its establishment was to become a member of this association. The membership of the association has made and continues to make great contributions to our University in every sense.

I can proudly say that the Union of Thrace Universities is one of the most active and effective university associations in Türkiye and carries out many mutual activities with the participation of rectors, academicians, administrative staff and students in cooperation with five universities throughout the year. Some of these activities are regularly organized by a different university, which is a member of the union, on a rotating basis every year. The "International Health Sciences Congress", hosted for the 5th time by our university, is one of the events organized within this scope.

Dear Professors and Researchers,

The COVID-19 pandemic, which has affected the whole world in the recent past and which we cannot say that we have completely got rid of its negativities, has once again shown to all humanity how important the issue of health is and how valuable every contribution to this field is.

Likewise, as a reflection of the accelerated developments in technology, the field of health sciences also shows rapid change and development. These developments help the emergence of new diagnosis and treatment methods, and this prolongs the average human lifespan. Along with these developments, the reasons such as the increase in the world population, the increase of chronic diseases and the obligatory patient follow-up by the countries; increase the need for innovative methods at the point of health care delivery and management.

In the light of the reasons I mentioned above, we determined the main theme of our congress, which was held for the 5th time this year, as "Innovative Approaches in Health Sciences". Our aim with this congress is to bring together researchers and professionals working in different fields related to health and to achieve an interdisciplinary approach.

Dear Professors and Researchers,

I would like to share some basic statistics about our congress with you.

- A total of 683 researchers from the KKTC and abroad, primarily from universities in our country, take part in our congress.
- While 200 of our participants are working or studying at our TUU member universities,
- 432 researchers from other universities contributed to our congress with their papers.



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- While 11 researchers from KKTC and foreign universities take part in our congress, 40 of our participants work in non-university institutions and organizations.
- There are a total of 303 papers, 288 of which are oral and 15 are poster presentations, in our congress. 10 of the oral presentations were Physical Education and Sports, 25 of them were Nutrition and Dietetics, 39 of them were Physiotherapy and Rehabilitation, 89 of them were Nursing / Midwifery, 21 of them were Health Management, 14 of them were Social Services, 27 of them were Clinical Medical Sciences, 36 of them are related to Basic Medical Sciences and 27 of them are related to Other Topics in Health Sciences.

I hope that our congress will lead to many opportunities and collaborations, especially in the field of health sciences, to come together with valuable scientists, to share knowledge and experience, to increase qualified and original academic studies, to develop mutual projects, to develop scientific education processes.

I would like to thank to the Organizing Committee, who contributed to the organization of the congress, and to the Chairman of the Board Prof. Dr. Diler Yılmaz, to the Union of Thrace Universities, to the esteemed Rectors and institutions of the member universities of our union, to the esteemed Secretary General of our union, to all our friends who contributed to the organization of the event, and to all the participants and researchers who made this event meaningful with their papers and presentations. I hope that the congress will be productive for our country and I greet everyone with love and affection.

Prof. Dr. Süleyman ÖZDEMİR

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ORAL PRESENTATION

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ORAL PRESENTATION BASIC MEDICAL SCIENCES

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

THE CYTOMORPHOLOGICAL EVALUATION OF ANTI-INFLAMMATORY EFFECT OF *PUNICA GRANATUM* PEEL EXTRACT

Ezgi Gün¹, Burak Çakar², Kubilay Doğan KILIÇ³, Emel Öykü Çetin Uyanıkgil⁴, Yiğit Uyanıkgil⁵

Aim: The pomegranate peel is rich in antioxidants and flavonoids therefore it is thought that the pomegranate peel extract would be a considerable alternative treatment method to prevent inflammation. Simultaneously, it is aimed to observe the anti-inflammatory effect of the pomegranate peel extract to prevent inflammation that may occur in the gastrointestinal tract.

Methods: The anti-inflammatory effect of pomegranate (*Punica granatum*) peel extract had been investigated on RAW 264.7 macrophage cell line in this study. Pomegranate peel extract was prepared by mixing with the medium at rates of 25 µg/mL, 50 µg/mL and 100 µg/mL for MTT tests. Giemsa stain is used for histochemistry; iNOS is used for immunohistochemistry.

Results: Active pomegranate peel extract concentration was determined as 50 mg/mL with MTT analysis. The most intense staining was observed in the group with the most intense nitric oxide in the medium. A significant concentration of pomegranate peel extract had been found by performing in vitro studies on RAW 264.7 cell line.

Conclusions: According to the relevant concentration, it is planned to design a pharmacokinetic study in the future.

Keywords: Pomegranate peel extract, RAW 264.7, anti-inflammatory, *Punica granatum*, cytomorphology

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EXAMINATION OF ANATOMIC VARIATIONS OF THE SURAL NERVE ON ULTRASONOGRAPHIC IMAGES

Rukiye Çiftçi¹

Aim: The sural nerve (SN) is widely used as a donor for nerve grafting. In contrast to the fixed retromalleolar position, the formation and course of the proximal sural nerve varies greatly. The aim of this study is to search the literature examining SN variations with ultrasound imaging on individuals.

Methods: This study was conducted by scanning the keywords 'sural nerve, ultrasound, variation, anatomy' in Pubmed and Google Scholar databases between 2010-2022. Out of the 2192 publications obtained, 8 of them were used, which fit the idea of working. Four types of SN were found in the studies reviewed.

Results: Combination of medial sural cutaneous nerve (MSCN) and peroneal communicating nerve (PCN) (Type 1); Combination of MSCN and Lateral Sural Cutaneous Nerve (LSCN) (Type 2); continuation of MSCN without PCN (Type 3); designated as PCN (Type 4) alone. It is divided into three parts according to the SN junction. 60-75% of SN resulted from the fusion of the MSCN and LSCN in the upper two-thirds of the leg.

Conclusions: Due to the broad clinical significance of the SN, a detailed understanding of its anatomy is imperative for clinical practice. Clinicians, especially surgeons, should be aware of variations in SN formation to prevent iatrogenic injury to the nerve during operative procedures.

Keywords: Sural nerve, anatomy, ultrasound, variation

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PROTECTIVE EFFECT OF CURCUMIN ON PENICILLIN-INDUCED ASTROCYTE STRESS AND DEATH IN THE ASTROGLIAL CELL LINE

**Nuriye Kurbetli¹, Şahika Pınar Akyer², Mehmet Bülent Özdemir³, Onur Tokgun⁴, Huri Bulut⁵,
Büşra Çelikkaya⁶, Kubilay İnci⁷.**

Aim: The recent prominence of the idea that astrocytes are effective in the mechanism of epilepsy has led to changes in the mechanism of the disease and, consequently, in antiepileptic drug studies. The aim of this study was to demonstrate the protective effect of Curcumin on astrocyte degeneration induced by penicillin in the primary astroglial cell line.

Methods: In this study, newborn rat brain was extracted, separated into astroglial cell suspension and grown in culture medium. Different concentrations of curcumin were used in penicillin-free and penicillin-containing media. While penicillin decreased the viability of the astroglial cell statistically, curcumin was observed to increase the cell viability statistically significantly by preventing the damage caused by penicillin to the primary astroglial cell line. The cDNAs obtained from the samples and Bax, Bcl2, CDK6, P21 and Cyclin D1 levels were determined by Real-Time PCR device and "Comparative CT" analysis. The levels of p38 MAPK and phospho p38 MAPK, JNK, were measured by Western blot method.

Results: In both RT-PCR and western blot results, statistically significant differences were found explaining the mechanism between the penicillin-treated cell line and the curcumin-treated penicillin cell line groups. Cell survival has been shown to be strongly dependent on curcumin.

Conclusions: In conclusion; we think that curcumin can be used as an antiepileptic agent due to its effects on the cellular mechanism of epilepsy and anti-seizure against decreased cell viability in penicillin-induced primary astroglial cell line.

Keywords: Curcumin, astrocyte, penicillin, newborn rat brain, cell culture

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CURRENT TREATMENT OPTIONS IN MALE INFERTILITY RELATED TO DIABETES IN EXPERIMENTAL ANIMAL MODELS

Pelin Toros¹

Aim: Today, diabetes mellitus (DM) is an increasing global health problem and one of the reasons affecting male fertility. Glucose metabolism plays an important role in the spermatogenesis process, and hyperglycemia threatens many men, especially in reproductive age. Although the exact pathophysiological mechanisms caused by DM in male infertility have not been fully elucidated, there are animal studies showing that diabetes affects many signaling pathways and causes infertility onset through apoptosis, oxidative stress and disruption of steroidogenesis. Considering the rapidly increasing prevalence of diabetes, it provides a platform for the development of antidiabetic strategies and related treatment methods for the recovery of impaired spermatogenesis in the animal diabetes model. In this review, focusing on the therapeutic approach shown in diabetic animal models, giving information about the effect of diabetes on male infertility and emphasizing the treatment options in the current literature.

Method: A literature search was conducted for the last 10 years using the terms of male infertility, diabetes, animals, therapeutic search in Pubmed, Google Scholar electronic database. Studies reporting the effect of diabetes on male fertility and performance of anti-diabetic targeted therapy in experimental animal models are included.

Conclusion: Experimental models have emphasized that antioxidant agents, including plant extracts, natural antioxidants, vitamins and minerals, exercise and, in recent years, especially stem cell application, may be effective in infertility management in diabetic infertility. More research in humans is needed to confirm the risks and benefits of these agents in the treatment of diabetes-related men.

Keywords: Male infertility, diabetes, animals, therapeutic

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TEACHING METHODS USED IN ANATOMY EDUCATION

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Aim: Gaining in-depth knowledge of human structures and the ability to apply this knowledge in clinics has an important place in many medical disciplines. For this reason, anatomy is considered the "foundation of the medical sciences" as it is a field in which healthcare providers acquire fundamental knowledge to build a solid foundation. However, in recent years, it has been stated that there is a visible deterioration in the anatomy knowledge of medical students and one of the biggest reasons for this problem is due to insufficient knowledge in the relevant field. For this reason, different teaching options were tried during anatomy education. The technology, which we have integrated into our lives, has also been actively used in anatomy education. The aim of this study is to examine the teaching methods used in anatomy education and to examine the contribution of technology to this process.

Methods: Pubmed and Google Scholar databases were searched using related keywords (human anatomy, medical education, technology, three-dimensional, virtual reality) and the data between 2018-2022 were examined. As a result of our investigations, although 19,000 articles covering other disciplines were found, 12 articles that were highly relevant to our subject were scanned.

Results: In addition to textbooks, atlases, bones, models, cadavers, online resources, social media, videos used in anatomy education, technological materials such as virtual reality, augmented reality, three-dimensional printing, three-dimensional visualization technology increase the motivation of students. It has been seen that it increases the learning and makes learning more permanent.

Conclusion: The importance of traditional teaching methods and technological applications in anatomy education and their contribution to students are undeniably great. For this reason, both traditional methods and technological applications should be used together and the quality of anatomy education should be increased in this way.

Keywords: Human anatomy, medical education, technology, three-dimensional, virtual reality.

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RELATIONSHIP BETWEEN COBB AND PAL (PROJECTION AREA PER LENGTH SQUARED METHOD) METHOD IN EVALUATING CERVICAL LORDOSIS WITH CERVICAL PAIN SYMPTOM

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Aim: Cervical pain is a common musculoskeletal problem that we encounter frequently. Cervical region pain restricts the mobility of individuals and negatively affects their daily lives. The etiology of cervical pain is related to disc herniation, the alignment of the joints, muscles, ligaments and vertebrae in the cervical region. Factors that cause cervical pain can cause gradual decrease in cervical stability and loss of cervical curvature. Lateral radiographs are often used to evaluate cervical lordosis. The most commonly used method to evaluate cervical lordosis is the Cobb angle measurement method. Projection Area Per Length Squared (PAL) method is a method used to evaluate lumbar lordosis on direct lateral radiographs. The aim of this study is to examine the relationship between the Cobb method, which is the most commonly used to evaluate cervical lordosis, and the PAL method, which will be used for the first time to evaluate cervical lordosis.

Methods: In our study, cervical lateral radiographs of 43 patients with cervical pain who applied to Aydın Adnan Menderes University Faculty of Medicine were examined. Cervical lordosis of the cases was evaluated with both Cobb and PAL methods in radiological images.

Results: A high level of positive correlation was found between the data we obtained and the Cobb method and the PAL method ($r=0.637$).

Conclusions: When the correlation between the data obtained as a result of our study is examined, we think that the PAL method can be presented to clinicians as a practical and alternative method in evaluating cervical lordosis.

Keywords: Cervical lordosis, Cobb method, PAL method, lateral radiograph, cervical pain.

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A PILOT STUDY: NARINGENIN INCREASES CELL VIABILITY in CISPLATIN-INDUCED CARDIOTOXICITY

Pınar Bayram¹

Aim: Cisplatin is a chemotherapeutic drug used in the treatment of numerous human cancers, including cancers of the bladder, head and neck, lung, ovary, and testes via induces apoptosis by interfering with the DNA repair mechanisms of cancer cells. Since cisplatin has side effects such as nephrotoxicity, ototoxicity, hepatotoxicity, gastrointestinal toxicity and cardiotoxicity, its clinical use is greatly limited. Naringenin is one of the most important flavonoids found predominantly in citrus and some eatable fruits such as tomatoes and some types of figs. Data from both in vitro and in vivo animal studies confirm the hepatoprotective, antiatherogenic, antiinflammatory, antimutagenic, anticancer, antioxidant, antibacterial, antimicrobial, antiapoptotic effects of naringenin. In this study, it was aimed to benefit from the antiapoptotic effect of naringenin in cisplatin-induced cardiotoxicity in H9C2 rat myocardial cell line.

Methods: It was determined to non-toxic doses of naringenin in H9C2 cells. Approximately 7000 cells per well were seeded in 96-well plates and damaged with cisplatin for two hours. Then, cell viability rates were determined by applying naringenin at determined doses (100 μ M, 50 μ M, 25 μ M). In order to show live and dead cells, H9C2 cells were seeded in 24well-plate, and FDA-PI staining was performed after cisplatin and naringenin administration.

Result: As a result of cytotoxicity analysis, the viability rate decreased up to 43% as a result of cardiotoxicity with cisplatin. Although it was observed that naringenin given at high doses had less effect on cardiotoxicity, the highest viability rate was observed at 25 μ M.

Conclusion: It has been shown that naringenin increases cell viability and prevents apoptosis in cisplatin-induced cardiotoxicity in H9C2 cells.

Keywords: Naringenin, H9C2 cell line, cisplatin, cardiotoxicity

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INFLUENZA WATCH DURING COVID-19 OUTBREAK

Ugur Demirpek¹

Aim: COVID-19 and influenza are both respiratory diseases, those that have similar clinical symptoms, and transmission routes. Both influenza and COVID-19 can be fatal. Amidst COVID-19 pandemic, influenza sentinel surveillance data have revealed unforeseen courses. Beginning by the 2019-2020 influenza season, influenza-like illness data in the northern hemisphere appears to have a markedly lower main epidemic peak compared to recent years. Analyzing three years (2020, 2021, 2022) of influenza like illness (ILI) trends, clinical and laboratory data of patients as well; we have sought to figure out the co-infection profiles and disease dynamics.

Methods: This study is a retrospective, descriptive research. The patient records were retrieved from the hospital patient management information system database. The data was analyzed by means of statistical methods and softwares. Also, we worked out national and local influenza-like illness (ILI) sentinel surveillance data. All of the scientific activity was achieved under the auspices of Turkish Ministry of Health and Bursa City Hospital ethical council.

Results: Yet, national and international data indicate that flu has been found in low frequency and rates worldwide during COVID-19 pandemic. Novel variants of SARS-CoV-2 virus beyond influenza viruses are associated with significant morbidity and mortality amongst patients in our center. Detection of these agents could be useful for the adjustment of proper treatment in severe cases.

Conclusions: Influenza-like illnesses (ILI) are estimated to cause millions of deaths annually. Despite this disease burden, the etiologic causes of ILI are poorly described for many geographical regions. Since influenza viruses have a wide variety of hosts, it is critical to strengthen surveillance for detection of probable novel strains to cause epidemics or pandemics.

Keywords: Influenza, COVID-19, infection, laboratory surveillance

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LATISSIMUS DORSI IN FETAL CADAVERS

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Aim: The aim of this study is to determine the morphometric development and to investigate its innervation and vascularization of latissimus dorsi (LD) on fetal cadavers.

Methods: The study was conducted on the LD of a total of 49 fetuses (25 males, 24 females) aged between 15 and 40 weeks. The dimensions of LD and LD tendon, horizontal lengths of thoracolumbar fascia were measured. The attachments of LD and branching pattern of thoracodorsal nerve (TN) were evaluated. The development of the findings during gestational age (trimester) was evaluated. Furthermore, comparisons were made between right-left sides and genders.

Results: It was determined that the all parameters increased with gestational age. When the right-left measurements and genders were compared, no significant difference was found for all parameters in both general and trimester groups. A strong relationship was determined between gestational age and anterior border length - posterior border length - width of LD. It was observed that LD was attached to iliac crest at a rate of 60.2% by muscle fiber. It was determined that it was attached to inferior angle of scapula with a rate of 88.5% and 4.1% of this was via muscle fiber. Tendons of LD and teres major were adhered to each other in 9.8% of cases. The branches numbers of TN before entering LD were observed to range between 2 and 8. Also, variational muscles were detected.

Conclusions: It is believed that the obtained data will contribute to clinicians, radiologists and surgeons for more accurate diagnosis, clinical evaluation, tendon, muscle and nerve transfer repair.

Keywords: Fetus, cadaver, latissimus dorsi, thoracolumbar fascia, thoracodorsal nerve

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ANALYSIS OF MORMOMETRIC MEASUREMENTS BY GENDER IN SLEEP APNEA SYNDROME

Rukiye Çiftçi¹, Ahmet Kurtoğlu²

Aim: Obstructive sleep apnea syndrome (OSAS), which develops as a result of changes in breathing while sleeping, can be evaluated as pathological and may cause an increase in morbidity and mortality rates in these patients. Our aim in the study is to examine these measurements in terms of gender by taking morphometric measurements in individuals diagnosed with OSAS.

Methods: 79 individuals diagnosed with OSAS were included in the study. Among these individuals, the mean age of men was 51.00 ± 7.82 (n:52), and the mean age of women was 56.38 ± 8.45 (n:27). In the study, gender, age, neck circumference, waist circumference, hip circumference, waist/hip ratio, Body Mass Index (BMI), Weight measurements were taken. In the normality analysis for statistical operations, it was determined that the data showed a normal distribution. For this reason, the Independent Sample T-Test was applied for comparisons between genders. Pearson Correlation analysis was performed to determine the relationship between the research data. The level of significance in the study was determined as 0.05.

Results: According to the T test results of the patients diagnosed with OSAS in our study, according to gender; We found significant differences in age, height, hip circumference and BMI results. Although the waist circumferences and waist/hip ratios of the female patients were higher than the male group, there was no significant difference. In the Pearson correlation analysis, it was determined that there was a high level of correlation between the gender of individuals diagnosed with OSAS and age, hip circumference, height and BMI.

Conclusions: According to the results of our study, it was determined that the diagnosis of OSAS was seen at an earlier age in males. We also think that obesity may cause OSAS. For this reason, it can be recommended to increase the awareness of physical activity of individuals with UOAS.

Keywords: Sleep apnea, gender, waist to hip ratio, physical activity

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THE NOVEL ALDH1A INHIBITOR 673A ALTERS THE PI3K/Akt SIGNALLING IN CD133^{high} OVARIAN CANCER CELLS

Melike Ozgul-Onal^{1,2}, Tuna Onal^{2,3}, Ilana Cheftz², Robert Clarke²

Aim: The study was aimed to investigate the possible effects of a novel aldehyde dehydrogenase-1A (ALDH1A) inhibitor 673A on CD133^{high} ovarian cancer stem cells through the PI3K/Akt pathway.

Methods: Positively CD133 expressing cells were isolated from untreated and non-resistant A2780 ovarian cancer cell line and chemo-resistant high grade serous ovarian carcinoma PEO4 cell line. Cells were cultured for 72 hours with either DMSO alone (vehicle control) or the ALDH inhibitor 673A. The colony forming assay was performed using the 6.25 μ M 673A to evaluate cell growth properties of CD133^{high} cancer stem cells and western blotting analysis was performed using the 12.5 μ M 673A to measure protein levels of pAkt, Akt, PTEN, PI3K, NF κ B.p65, CD133 and ALDH1A under treatment in both CD133^{negative} and parental ovarian cancer cells.

Results: The colony numbers attenuated in 673A-treated groups of CD133^{high}, CD133^{negative} and parental cells of A2780 and PEO4 cell lines. While increased expression of the pAkt and Akt proteins was detected in all treated cells, PI3K and NF κ B.p65 expression did not change, and PTEN expression was decreased.

Conclusions: We found that the level of pAkt was elevated in ovarian cancer cells as a result of exposure to 673A and this increase can be PI3K-independent. The results were surprising because Akt is an important signal molecule that promotes cell survival pathways, inhibits apoptosis and confers cellular resistance to therapies. Thus, the shown significant anti-proliferative effects of 673A and the increasing of 673A-dependent expression of pAkt can be associated with triggering an apoptosis-independent cell death. This therapeutic intervention triggered activation of Akt might have a role in affecting the overall therapeutic responses of cancer cells to the treatment. Clinical benefits in the treatment of ovarian cancer patients could be obtained with appropriate combinations of novel Akt inhibitors and conventional chemotherapeutic drugs or ionizing radiation.

Keywords: Ovarian cancer stem cells, CD133, 673A, PI3K, Akt.

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THE ROLE OF TRPV1 CHANNEL IN MIGRAINE: A REVIEW OF LITERATURE

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Migraine is one of the most common chronic neurovascular diseases worldwide. The most prominent symptoms of the disease are attacks of moderate or severe headache, a chronic neurological disorder. Although many studies have been conducted on the origin of the disease, the molecular mechanisms underlying migraine are still not fully understood.

The transient receptor potential (TRP) vanilloid-1 (TRPV1) channel, a member of the TRP channel family, has well characterized in the mammalian body, expressed by a subset of peripheral sensory neurons involved in the sensation of pain and several other neuronal and non-neuronal regions. The literature showed that stimulation of TRPV1 caused a burning sensation reflecting the central role of the channel in pain. In addition, *in vivo* experimental pain model studies showed that TRPV1 antagonists effectively reduced pain. Another experimental migraine model study highlighted the TRPV1 channel's role in nociceptive trigeminocervical signalling via the trigeminocervical complex or neurogenic dural vasodilation. In a clinical study conducted on 46 patients with migraine (27 episodic and 19 chronic) and 50 healthy individuals, it was suggested that TRPV1 1911A>G SNP genotyping could be used as a prognostic factor and clinical biomarker to predict the severity of migraine and choose a timely prophylactic treatment strategy. In other studies on migraine pain, it was stated that there is an important relationship between TRPV1 and the neuropeptides calcitonin gene-related peptide (CGRP) and substance P (SP).

In conclusion, we saw a significant relationship between migraine and the TRPV1 channel when examining the existing literature data. However, it will be essential to clarify the role of the TRPV1 channel in this mechanism to understand better the molecular mechanisms related to migraine pain. Thus, controlling the TRPV1 channel activation in cells will provide a therapeutic approach as a pharmacological target in treating migraine.

Keywords: Migraine, pain, TRPV1 channel, CGRP, substance P.

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PHYSIOLOGICAL EFFECTS OF COLD STRESS AND BEE VENOM IN METABOLIC DISORDER DUE TO HIGH FAT DIET IN RATS

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Aim: Metabolic disorders appear as risk factors for many diseases. One of the biggest causes of metabolic disorders is a high-fat diet. Increased dietary lipid with a high-fat diet increases lipogenesis and ectopic lipid accumulation, and therefore, increased peripheral insulin resistance leads to inflammatory response, chronic oxidative stress, and progressive organ damage. Exposure to cold induces adaptation to cold and provides adaptation with physiological changes. Bee venom treatment is performed with various methods such as apipuncture and direct injection of bee venom. In our study, the effects of bee venom and cold exposure on blood lipid levels in high-fat fed rats and whether they have synergistic effects were investigated.

Methods: 3-week-old Sprague-Dawley male rats (30-40 g) were divided into 7 groups: control, cold stress (CS), high-fat diet (HFD), 0.5 mg/kg bee venom (BV), HFD+CS, HFD+ BV, HFD+CS+ BV. Rats were fed with high fat diet for 8 weeks. For the last 21 days, rats were exposed to cold for 2 hours a day and bee venom was injected subcutaneously for the last 15 days. Animals were sacrificed on the last day and fasting blood glucose was measured. Serum was then obtained, followed by lipid profile measurements. All data were presented as mean±standard error of the mean (SEM). Differences between the groups were assessed with One-way ANOVA Post hoc LSD test $p<0.05$ was considered significant.

Results: Triglyceride levels were significantly lower in the HFD+ BV group compared to HFD group ($p=0.024$). HDL was significantly higher in HFD+BV ($p<0.001$) and HFD+BV+CS ($p<0.001$) compared to other groups. Fasting plasma glucose levels were significantly lower in HFD+BV ($p=0.001$) and HFD+BV+CS ($p=0.007$) compared to other groups.

Conclusions: It has been shown in our study that exposure to cold and bee venom have a synergistic effect on blood lipid levels and fasting blood sugar disorders in a high-fat diet, and bee venom has a regulatory effect on triglyceride.

Keywords: High fat diet, metabolic disorder, cold exposed and bee venom.

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QUICK AND SENSITIVE DETECTION OF ONE OF THE MOST IMPORTANT FOOD PATHOGENS, *Shigella spp.*, USING THE SANDWICH ASSAY METHOD, WITH BIOSENSOR

Nurevşan Kaya¹, Sümeyra Savaş²

Aim: *Shigella spp.* It is one of the most common bacteria in food microbiology. For this reason, it is very important to develop new methods for the rapid detection of bacteria, especially *Shigella*, in order to protect public health depending on food and sometimes water. In this study, it is aimed to detect commercially purchased inactive *Shigella spp.* bacteria on the sensor chip in a fast and low amount using only the sandwich assay method.

Methods: We developed a *Shigella spp.* specific detection biosensor process. Commercial *Shigella spp.* from water samples were investigated using standard antibody sensors with sandwich assay. We used, commercial (Mehtrum-Dropsens) electrochemical sensor devices and gold plated screen printed electrode. The concentration of commercially available *Shigella spp.* was determined to be 2.247×10^7 cfu/mL. By reducing the concentration, it was added to the sample liquids and with the created simulative experiment, with this way, minimum measurable *Shigella spp.* concentration was determined from water. The last, the specificity of immunoassay was tested by studying with non-specific bacteria including.

Results: As a result of the measurement of all concentrations, the minimum *Shigella spp.* concentration was determined as 227 cfu/mL. The minimum concentration was compared with the measurements made with air and water. The measurement value obtained for 227 cfu/mL was 1246 nA, while the measurement values taken with air and water were determined as -1038 and 1908, respectively. The results were determined in cross-reactions. *E. coli* and *S. aureus* that revealed only 1.04% and 1.21 % binding when compared to the target bacterium.

Conclusions: Specially designed *Shigella spp.* Our specific sensor provided rapid, high-sensitivity and specific diagnostic assay approaches.

Keywords: Amperometry, *Shigella spp.*, real-time pathogen detection

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EFFECT OF ALDEHYDE DEHYDROGENASE 1A INHIBITOR 673A ON ADHERENT AND SPHEROID OVARIAN CANCER CELLS

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Aim: We aimed to investigate the effect of aldehyde dehydrogenase 1A inhibitor 673A on Type I ovarian cancer and high-grade serous ovarian cancer cells and cancer stem cells obtained from these cells.

Methods: We used the type I ovarian cancer cell line A2780 and the high-grade serous (Type II) ovarian cancer cell line PEO4. CD133+ ovarian cancer stem cells and CD133- bulk ovarian cancer cells were obtained by FACS. We determined CD133 and ALDH1A expressions by western blot. We checked CD133 expression of cells on day 15 by flow cytometry. We established the dose-dependent growth responses to 673A treatment and measured the effect of the inhibitor on adherent and spheroid cultures.

Results: We observed that CD133+, CD133-, and parental A2780 and PEO4 cells were morphologically similar. After the cells were sorted, 0.7% CD133+ cancer stem cells and 16.3% CD133- ovarian cancer cells were obtained from the A2780 cancer cell line. 38% CD133+ cancer stem cells and 49% CD133- cancer cells were obtained from the PEO4 cell line. According to the growth curve analysis, we determined that the most effective dose of 673A was 12.5uM at 72 hours. We confirmed that CD133 and ALDH1A expressions were decreased after 72 hours of exposure to 12.5 µM 673A by western blotting experiments. We determined the stem cell properties of CD133+ cancer stem cells to be 78.2% in A2780 cells and 98.6% in PEO4 cells by flow cytometry on day 15. Treatment with 673A at different concentrations reduced the growth of spheroids in a dose-dependent manner.

Conclusions: The expression of CD133 of cancer stem cells in A2780 cells is less than in PEO4 cells. The ALDH1a inhibitor 673A decreased the expression of both CD133 and ALDH1A in ovarian cancer stem cells. A dose-dependent inhibition of the proliferation rate of adherent and spheroid cultures was observed with 673A treatment.

Keywords: Ovarian cancer, cancer stem cells, ALDH1A, 673A, CD133

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SLEEP DEPRIVATION CAUSES OXIDATIVE STRESS

Buse Gül¹, Ferhat Şirinyıldız²

Aim: In this study, the association between sleep deprivation and oxidative stress is explored by a review. This relation is significant for the mechanism underlying the diseases produced by sleep deprivation.

Methods: In particular, we evaluated the articles published recent years in Pubmed and Science direct using the key words: sleep deprivation, oxidative stress and lipid peroxidation.

Results: In our analysis of the literature showed that most of papers reported that sleep deprivation induced oxidative stress. On the other hand few papers introduced that there is no evidence regarding relationship between oxidative stress and sleep deprivation. Moreover one paper reported a decrease in oxidative stress (decreased lipid peroxidation) while one paper considered that the elevation in oxidative stress is only transitory, hence not permanent. Not only sleep deprivation, but also some studies have indicated that memory deficitis, multi-organ injury, muscle damage could be related to oxidative stress. Besides that, melatonin, vitamin E, sericin, glutamine, quercetin have been examined to reduce the effects of oxidative stress.

Conclusions: This review demonstrates sleep deprivation causes oxidative stress. Moreover, it can be emphasized that oxidative stress could be root of many pathologies and many more. These findings should be supported to eliminate conflicting data by future studies. Researchers should focus more on reducing the impact of oxidative stress or altogether preventing it to happen while discovering related pharmacological agents.

Keywords: Sleep deprivation, oxidative stress, lipid peroxidation

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ANATOMICAL CONSIDERATION OF PTERION AND ITS CLINICAL IMPORTANCE

Şeyda Karabağ¹, Hülya Üçerler²

The pterion is a junction point formed by the combination of the frontal, parietal, and temporal bones and the greater wing of the sphenoid. It is closely related to the middle meningeal artery and Broca's motor speech area and is essential in anterior and middle cranial fossa surgeries. This study aims to evaluate the information about the type and location of the pterion in human skulls and its relationship with the surrounding bony points. The research was carried out on 70 dry skulls found in the bone archive of the Ege University Faculty of Medicine, Department of Anatomy. The distance to different landmarks determined from the pterion bilaterally was measured with a precision digital caliper. Pterion types are also classified. These are sphenoparietal, frontotemporal, epipteric and stellate. In our study, the sphenoparietal pterion type was the most common on the right side (64.29%) and on the left side (77.14%). The mean distance from the center of the pterion to the frontozygomatic suture was on the right side 30.85 mm, on the left side 32.10 mm and the average distance to the midpoint of the zygomatic arch was on the right side 41.63 mm, on the left side 41.42 mm. With the obtained data, a severe contribution will be made to the scientific literature on the variations of pterion, its morphometric analysis, and its importance in clinics.

Keywords: Pterion, anthropological point, cranium, classification, morphometry

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COMPUTER AIDED DRUG DESIGN

Merve Aras¹, Özlem Yayıntaş²

Approximately 10,000 drug candidate molecules are analyzed for the production of a new drug. Since such a large amount of drug molecules are analyzed, it takes more than 10 years for a drug to be available for sale, and a cost of approximately 330 million dollars is required. To save time and money, many pharmaceutical companies have begun to analyze drug molecules with computer-aided drug design methods. There are two basic approaches to computer aided drug design. If the structure of the target protein is known, structure-based drug design methods are used, while if the structure of the target protein is not known, ligand-based drug design methods are used. Molecular docking, which is a structure-based drug design method, is a method that analyzes the interaction of protein and chemical compound with each other. For this method, the three-dimensional structure of the protein and chemical compound is needed. Various databases are available to obtain the three-dimensional structure of the protein and chemical compound. Usually, a protein database is used to obtain the three-dimensional structure of the protein. PubChem database is used to obtain the three-dimensional structure of the chemical compound. For the molecular docking analysis method, AutoDock software is generally used in the literature. As a result of the analysis, the AutoDock program finds nine results for protein-chemical compound linkage. The result with the lowest affinity value is selected from these nine results, and the molecular docking result is visualized to determine which chemical bonds the chemical compound interacts with the protein from which amino acids. In this way, some of the approximately 10,000 drug molecules that were initially available are eliminated as a result of molecular docking analysis, and fewer drug molecules remain. Thanks to this analysis, we can design drugs faster by saving time.

Keywords: Drug design, drug discovery, molecular docking

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EFFECTS OF KRILL OIL ON ACUTE RESPIRATORY DISTRESS SYNDROME

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Aim: In this study, it is aimed to investigate the effects of krill oil supplementation on Acute respiratory distress syndrome (ARDS) through antioxidant and anti-inflammatory mechanisms.

Methods: In particular, we evaluated the articles published recent years in Pubmed and Science direct using the key words: krill oil, antioxidant, antiinflammatory and acute respiratory distress model.

Results: ARDS is a syndrome that is triggered by many different causes that cause direct and indirect damage to the lung, starts acutely and includes serious structural changes including inflammation, proliferation, and fibrosis in the lungs. Although much progress has been made in the pathophysiology of ARDS, very successful results in pharmacotherapy have not been achieved yet. Krill is a shrimp-like crustacean that feeds on plankton and algae, usually found in cold oceans. Krill oil is mostly known as a top source of omega-3 and contains a very powerful antioxidant known as astaxanthin. Antioxidants are very important as they protect our body from damage by free radicals to cells. Krill oil also contains phospholipids. Many positive effects of krill oil on human health, especially in cardiovascular and neurological areas because of its antioxidant and anti-inflammatory power, have been determined. When these effects are considered together, it is thought that it will lead to positive results on ARDS due to its antioxidant and anti-inflammatory properties.

Conclusions: The positive effects of krill oil on ARDS can be observed by literature review. The effects of krill oil on the experimental ARDS model are examined by us and the results will be presented to the scientific world.

Keywords: Anti-Inflammatory, antioxidant, ARDS, astaxanthin, omega-3

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INVESTIGATION OF SPERM DNA INTEGRITY AND OXIDATIVE DAMAGE IN IDIOPATHIC AND NON-IDIOPATHIC PATIENTS WITH ASTENOZOOSPERMIC INFERTILITY

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Aim: It was aimed to examine the integrity of sperm deoxyribonucleic acid (DNA) and oxidative damage in idiopathic and non-idiopathic asthenozoospermic infertile patients.

Methods: Spermogram evaluations and viability tests were performed on 20 normozoospermic fertile, 20 idiopathic asthenozoospermic (IDA) and 20 non-idiopathic asthenozoospermic infertile patients. DNA fragmentation was assessed by the TdT-mediated dUTP-biotin nick end labeling (TUNEL) method. For Dichloro-dihydro-fluorescein diacetate (DCFH-DA) stained sperm, flow cytometric analysis was performed for the examination.

Results: Although there was no significant difference in sperm concentration, total motility, progressive motility, viability, and normal morphology evaluations between idiopathic and non-idiopathic asthenozoospermic infertile groups, there was a statistically significant difference between these groups and normozoospermic fertile group ($p \leq 0,05$). The highest statistical significance was found in the idiopathic asthenozoospermic infertile group and the lowest in the normozoospermic fertile group for abnormal chromatin condensation, DNA fragmentation and intracellular high reactive oxygen species (ROS) values, and there was a significant difference between all groups ($p \leq 0,05$).

Conclusions: As a result; According to the results of this study; the sperm DNA integrity and ROS of the group of idiopathic asthenozoospermic infertile patients in male infertility were found to be more affected by low sperm motility. It is thought that the results obtained may be a useful diagnosis for the evaluation and treatment of idiopathic asthenozoospermic male infertility with the help of analysis of sperm DNA integrity and oxidative damage.

*This project was produced from the thesis of the first author, Esra FİDAN KARAMADEN

Keywords: Flow cytometry, idiopathic asthenozoospermic (IDA), ROS, sperm DNA integrity, TUNEL

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INVESTIGATION OF THE SERUM VITAMIN B12, VITAMIN D AND FOLIC ACID LEVELS IN VITILIGO PATIENTS

Havva Koçak¹

Aim: In this retrospective analysis study, we aimed to investigate the vitamin D, vitamin B12 and folic acid levels in vitiligo patients.

Methods: Medical record data of 98 individuals (50 controls and 48 vitiligo patients) who have admitted to the hospital between years 2018 and 2019 were retrospectively scanned from Evliya Çelebi State Hospital Online Patient Information System (Origo Software Automation Interface) Kütahya Turkey, and blood vitamin B12, vitamin D and folic acid level values were collected. In statistical calculation, parametric two-tailed T-test was performed for two independent group comparison. PSPP 1.6.2 (<https://www.gnu.org/software/pspp/>), which is a free and open source statistical analysis software with GNU public license, was used for this purpose. P values less than 0.05 were considered as statistically significant.

Results: Of the whole participants, 60 (61.2%) were female and 38 (38.85) were male. The folic acid, vitamin B12 and vitamin D mean values were calculated as 7.81 ± 3.3 , 215.18 ± 99.26 and 15.02 ± 5.21 in control group and 8.08 ± 3.34 , 239.69 ± 110.97 and 13.24 ± 5.44 in vitiligo group respectively. The two-tailed T test significance values were as follows: Vitamin D (P = 0.101), Vitamin B12 (P = 0.252) and Folic Acid (P = 0.679). There was no prominent difference between the controls and vitiligo patient group.

Conclusion: Taken together, these results suggest that the given parameters may not necessarily affect the pathogenesis of vitiligo.

Keywords: Vitiligo, vitamin D, vitamin B12, folic acid.

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A CLINICAL PHENOTYPE-FREE AND TRANSFUSION-INDEPENDENT BETA-THALASSEMIA MAJOR PATIENT WITH HOMOZYGOUS IVS I-110 G>A (HBB: C.93-21 G>A) POLYMORPHISM

Süheyl Uçucu¹

Aim: The human hemoglobin variations and thalassemia database nearly often refers to the homozygous IVS I-110 G>A (HBB: c.93-21 G>A) mutation as a transfusion-dependent beta-thalassemia major. In Mediterranean nations, it is one of the most prevalent beta-thalassemia polymorphism. In this study, the IVS I-110 G>A (HBB: c.93-21 G>A) mutation-related beta-thalassemia major and the potential pathogens were examined in connection with in relation to one another.

Methods: A 5-year-old child with beta-thalassemia major was the subject of our study. The red blood cell index characteristics were obtained using the Sysmex XN 1000. (Sysmex Diagnostics, Japan). A Primus Ultra II cation exchange HPLC system was used to analyze hemoglobin variants (Trinity Biotech Diagnostics, Ireland). The Sanger technique was used to investigate beta-globin mutations on a DNA sequencer (Dade Behring, Germany).

Results: The HbVar and ClinVar databases classify the mutation we found as beta-thalassemia major dependent on transfusion. Severe clinical symptoms, including as anemia and transfusion addiction, are associated with homozygote IVS I-110 mutations. However, in this patient, it did not result in a clinical phenotype. While proband would normally have heavy anemia and transfusion-dependent clinical phenotyping, all of its findings are normal except for mild microcytic anemia and mild splenomegaly.

Conclusions: In conclusion, this patient lacked a clinical phenotype. All of the proband's results were normal, with the exception of mild microcytic anemia and minor splenomegaly. The clinical phenotype of the proband was often anticipated to be reliant on severe anemia and transfusion. If homozygous IVS I-110 G>A mutation had been devastating as indicated by the databases, the proband would have had heavy anemia and transfusion dependance. In this context, additional time, additional test and effort are required to comprehend the connection between pathophysiological and developmental alterations and IVS I-110 G>A (HBB: c.93-21 G>A) polymorphisms.

Keywords: IVS I-110 G>A, β thalassemia major, phenotype

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THERAPEUTIC EFFECT OF OXYRESVERATROL IN AGE-RELATED MACULAR DEGENERATION

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Aim: Age-related macular degeneration (AMD) is a chronic disease characterized by vision loss caused by neurodegeneration of the retinal pigment epithelial complex. Reactive oxygen species (ROS), which are formed in excess, play an important role in the development of retinal diseases, especially macular degeneration. The main ROS is hydrogen peroxides. In our study, we aimed to investigate the therapeutic effect of oxyresveratrol, on hydrogen peroxide (H₂O₂) induced oxidative damage in cell culture.

Methods: Oxidative stress was induced with H₂O₂ in human retinal pigment epithelial (ARPE-19) cells. After oxidative stress, Oxyresveratrol was applied in 7 different concentrations. The therapeutic effects were investigated by monitoring the change in cell viability with the XTT cell proliferation test. Cell death detection kit was used to investigate the therapeutic effect of oxyresveratrol at the molecular level.

Results: In the findings we obtained as a result of our study; It has been observed that when oxyresveratrol is applied to ARPE-19 cells after oxidative damage induced by H₂O₂, it reduces cell damage by approximately 3% at 10 µM concentration and 22% at 100 µM concentration. In addition, according to the cell death detection results, oxyresveratrol appears to reduce cell death by suppressing apoptosis in ARPE-19 cells under oxidative stress. As a result, after oxidative damage induced by H₂O₂ in ARPE-19 cell line, oxyresveratrol application increased cell viability and showed therapeutic efficacy against oxidative damage in the cell, and it exerts its effect through apoptotic pathways.

Conclusions: Our in vitro study is a preliminary study for the development of oxyresveratrol as a therapeutic agent. The fact that oxyresveratrol has a therapeutic mechanism of action supports the idea that it can be developed as an effective therapeutic agent in the treatment of retinal diseases, including AMD, after animal studies.

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Keywords: ARPE-19, oxyresveratrol, oxidative stress age-related macular degeneration.

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INVESTIGATION OF CELL CYCLE MECHANISM IN PLACENTAS OF PREGNANCIES WITH NORMAL AND *IN VITRO* FERTILIZATION

Gizem Korkmaz^{1,2}, Emin Trkay Korgun¹

Aim: This study aims to investigate cell-cycle proteins associated with placentation in normal pregnancy (NP), pregnancies as a result of fresh embryo transfers (fET), and Frozen Embryo Transfers (FET).

Methods: Immunohistochemistry and Western Blot assays were performed on placental tissues obtained from NP, fET, and FET pregnancies to determine the localization and expression of PCNA, cyclin D3, and p57 proteins. Statistical analyzes were performed.

Results: PCNA expression was increased statistically in the FET group compared to fET group. Also, cyclin D3 protein was statistically significantly increased in the FET group compared to the NP group. Immunolocalization of PCNA protein was highest in the cytotrophoblast cells of FET group. PCNA expression was observed only in the syncytiotrophoblast cells of FET group. Cyclin D3 protein was increased in the cytotrophoblast cells of fET and FET groups compared to the NP group. There was no staining for Cyclin D3 proteins in syncytiotrophoblast and endothelial cells in any of the groups examined. Moreover, cytotrophoblasts and stromal cells in the NP group had the highest immunoreactivity for p57. It was not determined in syncytiotrophoblast and endothelial cells.

Conclusion: The cell cycle mechanism differs in the placentas of pregnancies resulting from fresh and frozen embryo transfer with Assisted reproductive technology (ART). These results may be related to the pathological cases caused by ART and the success rates of pregnancies as a result of fET and FET.

Keywords: Assisted reproductive technology, placenta, cell cycle.

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VARIATIONS IN NEUROCRANIUM BONES AND CLINICAL CONSIDERATIONS

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Variations in neurocranium bones can cause confusion in cranial imaging. This may lead to misdiagnosis or delay in treatment. This study was planned in order to know the common variations in neurocranium bones and to consider the rare ones.

The metopic suture (MS) is one of the main sutures of the calvaria. If it cannot close in early infancy, it continues in adulthood and can be considered as the anterior continuation of the sagittal suture. The median occipital condyle is a rare variation of the occipital condyles in the skull. It is seen at the midpoint of the anteromedial edge of the foramen magnum. Atlas occipitalization is characterized by partial or complete fusion of the first cervical vertebra to the occipital bone. Its prevalence ranges from 0.08% to 2.76%. Failure of the ossification centers in the interparietal part of the occipital bone leads to the formation of the Inca bone (os interparietale). Eagle syndrome occurs as a result of ossification of the stylohyoid ligament and the length of the styloid process exceeding 30 mm. Absence of sella turcica is a rare radiographic finding. It can be isolated or occur frequently in the presence of other anomalies involving the adenohypophysis. Canalis basilaris medianus, which is rarely seen in the occipital part of the clivus, can be confused with fracture or synchondrosis on imaging. Duplication of the optic canal is a rare anomaly. In these cases, the optic nerve passes through the optic canal and the ophthalmic artery passes through the other canal.

We think that it is important to know the variations of neurocranium bones for radiologists and neurosurgeons during their diagnosis treatment processes of diseases.

Keywords: Anatomic variations, skull, metopic suture, occipitalization, Inca bone

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ANTIBACTERIAL ACTIVITY OF MOSS FIXED OIL AND *SILYBUM MARIANUM* ESSENTIAL OILS

Gülçin Özcan Ateş¹,

Aim: Infections caused by microorganisms are an important public health problem worldwide. The development of resistance to antimicrobial drugs used to treat microbial infections increases the importance of the need for new antimicrobial agents. For this reason, researchers have turned to plants as new sources of natural antimicrobial agents that contain therapeutically important components and have been used in treating diseases since ancient times. Therefore, in our study, the antibacterial activity of commercial moss fixed oil and commercial *Silybum marianum* essential oil against pathogenic bacteria.

Methods: Antibacterial activity was evaluated against *Escherichia coli* ATCC 25922, *Salmonella* Typhimurium ATCC 14025, *Salmonella* Typhimurium ATCC 51812, *Klebsiella pneumoniae* ATCC 700603, *Pseudomonas aeruginosa* ATCC 27853, *Staphylococcus aureus* ATCC 29213, and *Staphylococcus aureus* ATCC 25923 by NCCLS M07-A9 (2012) agar disc diffusion method. Ampicillin antibiotic disc was used as a positive control.

Results: As a result, it was determined that commercial moss fixed oil had antibacterial activity against all tested bacteria except *Pseudomonas aeruginosa* ATCC 27853. It was determined that moss fixed oil gave the lowest inhibition zone (21.50 ± 1.82 mm) against *K. pneumoniae* ATCC 700603, and the highest inhibition zone (37.08 ± 1.89 and 37.00 ± 1.77 mm) against *S. Typhimurium* ATCC 51812 and *S. aureus* ATCC 25923. It was determined that commercial *Silybum marianum* essential oil is effective against *K. pneumoniae* ATCC 700603 (19.92 ± 1.22 mm) and *P. aeruginosa* ATCC 27853 (10.92 ± 0.40 mm).

Conclusions: There is a need for more research on the antimicrobial activity of *Silybum marianum*, which is naturally distributed in our country and found due to its antioxidant properties due to the active ingredient silymarin in its seeds. In addition, more research should be done on the biological activities of mosses, which contains high amounts of terpenoids, phenolics, glycosides, fatty acids and some rare aromatic compounds.

Keywords: Antibacterial activity, moss fixed oil, *Silybum marianum* essential oil.

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BLAND-ALTMAN ANALYSIS, DEMING REGRESSION, AND PASSING-BABLOK REGRESSION IN METHOD COMPARISON STUDIES: A REVIEW

Talha Karabıyık¹

The handling of validation and verification of method performance varies widely from laboratory to laboratory, despite the fact that quality improvement efforts in clinical laboratories have been substantial in recent years, not least because of the introduction of ISO standards 15189 and 17025. Many of the published works on the subject contain statistics that are difficult to implement in routine laboratories. Consequently, this point is frequently overlooked or incorrectly implemented, which can lead to false conclusions about the performance of the method. The validation and verification procedures of the methods involve method comparison studies. In method comparison studies, the bias (or difference) between two methods measuring the same analyte is determined. This is typically performed before replacing an existing measurement procedure with a new one or when adding a measurement procedure to the existing test menu. The objective of the method comparison experiment is to determine whether the candidate method yields results comparable (within the statistical power of the experiment) to the existing method. This is quantified in terms of bias (or difference) and will assist in determining if changes are required in the reporting of results obtained with the candidate procedure, such as modifying reference ranges and medical decision limits. Bland-Altman analysis, Deming regression, and Passing-Bablok regression are used for method comparison studies of quantitative methods. However, these statistical techniques are underutilized in method comparison studies in Turkish clinical laboratories due to a lack of understanding. In this review, I introduce Bland-Altman analysis and its varieties, Deming regression and Passing-Bablok regression, and explain the rationale for the use of these regression types over ordinary least squares regression.

Keywords: Method comparison, Bland-Altman analysis, Deming regression, Passing-Bablok regression

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THE MYSTERY OF SECOND AND FOURTH FINGER PROPORTIONS

Ali Keleş¹

It is known that the second and fourth finger ratios (2D:4D) are a sexually dimorphic feature. It has been reported that these rates are determined in the 14th week of intrauterine life and stabilized before the age of 2, but do not change in the adolescent and adult periods. During embryogenesis, differentiation of testicles and ovaries and regulation of hand, foot and finger development are regulated by Homeobox (Hox) genes. 2D:4D is higher in women than in men.

2D:4D is thought to be negatively correlated with prenatal testosterone and positively correlated with estrogen. However, Voracek et al. meta-analysis showed that although the correlation between 2D:4D and masculinity or femininity was significant, the effect size was small. In this study, it was aimed to examine the cases associated with 2D:4D.

By examining 2D:4D, studies were conducted on individuals' predisposition for sports, risk of heart attack, personality traits, testicular volumes in children, predisposition for numerical verbal branches.. Aksu et al reported that those with low 2D:4D had higher scores for careful decision making, regularity, responsibility, determination, analytical thinking and sensitivity than those with high 2D:4D. Öztaşan and Kutlu stated in a study that individuals with high right hand finger ratios are in the high IQ range. Noipayak observed that autistic children have higher 2D:4D. Asadi reported that finger ratio may be effective in determining the dominant hand preference while writing. There are studies indicating that 2D:4D can be used to determine the risk of developing diabetes after birth. A negative correlation was found between 2D:4D and the risk of developing Alzheimer's. In recent years, it has been seen that 2D:4D has become a very important subject of study in the fields of health, sports and psychology.

Keywords: Digit ratio, testosterone and estrogen, sexual dimorphism

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INVESTIGATION OF CCHFV AND *B. burgdorferi* s.l GENOMES IN HOST-SEEKING TICKS COLLECTED FROM URBAN-LINKED FORESTRY AREAS OF ISTANBUL: IS A NEW BIORISK EMERGING?

Gurkan Akyildiz¹, Salar Zarrabi Ahrabi¹, Sirri Kar², Aysen Gargili Keles¹

Aim: Ixodid ticks can transmit Crimean-Congo Hemorrhagic Fever (CCHF), the most important tick-borne disease in Türkiye, and Lyme Borreliosis (LB), the most common tick-borne disease in Europe, and ABD to humans. The *I. ricinus* species complex transmits LB, and CCHF is transmitted primarily by *Hyalomma* spp. ticks. In addition, CCHF virus (CCHFV) was found in different tick species; but their vector competence has not been proven. These ticks' presence in Türkiye is known, and *I. ricinus* is primarily responsible for human tick bites in Istanbul. This study aimed to screen the CCHFV and *B. burgdorferi* sensu lato (s.l.) genome in collected ticks from Istanbul by polymerase chain reaction (PCR). Also, this study aimed to determine the region's risk status of Lyme borreliosis and CCHF.

Methods: Tick samples were collected by dragging and flagging between May and November 2021 from 6 different foci in Istanbul. Tick species were identified, pools were created, and DNA and RNA were extracted from pools. *B. burgdorferi* s.l. and CCHFV genomes were screened in the extracted nucleic acids by PCR. Positive samples were sequenced via the Sanger sequencing method, and phylogenetic trees were created in the IQTREE web server.

Results: According to the findings, *Ixodes* spp. (%81) and *Haemaphysalis* spp. (%19) ticks were collected. In all ticks, 14.63% CCHFV positivity, and in *Ixodes* spp. ticks 32.84% *B. burgdorferi* s.l. positivity was seen. According to sequence analysis and phylogenetic tree results, it was determined that all *B. burgdorferi* s.l. samples were in the LB-related group, and all CCHFV samples were in the Europe V clade.

Conclusions: This study determined that the region is at risk of LB and CCHF. It is recommended that the CCHFV vectorial capacity of *Haemaphysalis* spp. and *Ixodes* spp. ticks should be investigated, and a detailed biorisk assessment of the region in terms of the related diseases should be made.

Keywords: CCHF, lyme, tick, Istanbul

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EFFECT OF RESVERATROL ON BETA-1 INTEGRINE IN LUNG IN EXPERIMENTAL ENDOTOXIC SHOCK INDUCED BY LPS

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Aim: Sepsis is a serious clinical syndrome resulting from the effects of pro-inflammatory and apoptotic processes. Lipopolysaccharide (LPS), which is used as an inducing factor in sepsis clinic in the literature, initiates the pro-inflammatory mediator release process in immune cells. Integrins are transmembrane surface receptors that act as adhesion molecules and receptors and also play a critical role in leukocyte migration. The most common integrins, $\beta 1$ integrins, mediate cell-matrix adhesion and promote leukocyte motility in the perivascular and extracellular matrix area. Studies have shown that resveratrol, a grape seed extract, may have therapeutic efficacy in LPS-induced sepsis. Hence, the aim of this study is to examine the expression of $\beta 1$ integrin in lung tissue in an experimental endotoxic shock model induced by LPS.

Methods: 28 Sprague-Dawley rats were divided into 4 groups as control group (n = 7), LPS group (n = 7), resveratrol group (n = 7) and resveratrol + LPS group (n = 7). LPS i.p. at a dose of 30 mg/kg to appropriate groups and resveratrol was administered orally at a dose of 200 mg/kg every day for 10 days. The immunoreactivity of the $\beta 1$ integrin primary antibody was determined by immunohistochemistry in the lung tissues in rats.

Results: In the present study, it was determined that $\beta 1$ integrin expression in the lung was higher in the LPS group compared to the control and resveratrol groups. Hence, in the LPS + resveratrol group, $\beta 1$ integrin expression was decreased in the lung compared to the LPS group.

Conclusions: In the literature, it was stated that resveratrol dose-dependently decreased integrin expression in the lung, especially in neutrophils. Therefore, in this study, the low expression of $\beta 1$ integrin in the LPS + resveratrol group compared to the LPS group may indicate that resveratrol may play a role in the neutrophil-mediated interaction in sepsis.

Keywords: Sepsis, lung damage, beta 1 integrin, grape seed extract

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INVESTIGATION OF EXTENDED SPECTRUM BETA LACTAMASE PRODUCTION RATES OF *ESCHERICHIA COLI* ISOLATES CAUSING URINARY TRACT INFECTIONS

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Aim: *Escherichia coli* is the most common causative agent of urinary tract infections. The increase and spread of resistance to antibiotics is a big problem in our country as well as all over the world. Extended-spectrum beta-lactamase (ESBL) production is one of the most important resistance mechanisms developed by members of Enterobacterales, including *Escherichia coli*.

In this study, it was aimed to determine the ESBL production rate of *Escherichia coli* strains isolated from urine cultures in a tertiary university hospital.

Methods: *Escherichia coli* strains isolated from urine cultures sent from various clinics to Tokat Gaziosmanpaşa University Research and Application Hospital Microbiology Laboratory between December 2017 and December 2018 were retrospectively analyzed. Identification of *Escherichia coli* isolates isolated from samples sent from intensive care units were performed using the VITEK 2 automated system (bioMérieux, France). Conventional methods (Gram staining, lactose, urea, indole, oxidase, etc.) were used for identification in samples sent from polyclinic and other services. ESBL production was investigated by the double disc synergy method.

Results: A total of 366 *Escherichia coli* growths were determined, 249 from outpatients and 117 from inpatients. The frequency of *Escherichia coli* producing ESBL was found to be 11.5% (42), it was isolated from 30 female and 12 male patients. 52.4% of these samples were from outpatient clinics. Of the strains that did not produce extended-spectrum beta-lactamases, 63.6% (222) were isolated from outpatients, 34.6% (121) from wards, and 5.4%(19) from intensive care units. ESBL producing and non-producing strains were both detected most frequently in samples sent from the urology outpatient clinic.

Conclusions: Infections caused by *Escherichia coli* strains producing ESBL are important because the treatment is difficult and causes economic losses. Knowing the prevalence of *Escherichia coli* strains producing regional ESBL is very important in terms of being a guide for antibiotic selection in empirical treatment.

Keywords: Extended-spectrum beta-lactamase, *Escherichia coli*, urine culture.

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THE EFFECTS OF INFLAMMATORY PARAMETERS AND OXIDATIVE STRESS ON IRRITABLE BOWEL SYNDROME

Esra Nur Yiğit¹, Ferhat Şirinyıldız²

Aim: In this study, it is aimed to define the roles played by inflammatory and oxidative stress processes in the development of irritable bowel syndrome (IBS), which affects approximately 11% of the global population.

Methods: In particular, we evaluated the articles published recent years in Pubmed, Google Scholar and Science Direct using the key words: irritable bowel syndrome (IBS), oxidative stress and inflammation.

Results: In the progress of IBS; Although it is accepted that many components such as genetic, neuroendocrine, immunological, psychological, diet and environmental factors play a role, the exact pathophysiology of the disease is not fully understood. As a result of the investigations, regardless of the initiating process, the presence of high reactive oxygen derivatives (ROS) and increased inflammatory markers (Interleukins, TNF alpha etc.) were observed in the development of IBS. Histological examinations of the colon or terminal ileum of BS patients confirmed an increase in the number of immune cells in these regions. In addition, visceral hypersensitivity, which is predicted to play a role in the formation of immune and inflammatory mediators such as proinflammatory cytokines, has been associated with an increase in chronic discomfort and pain, which are clinical symptoms of IBS.

Conclusions: With the methods used to reduce oxidative and inflammatory parameters yield desired results; the decrease in the symptoms of the patients and the increase in the quality of life of the patients make the effect of inflammatory cytokines and lipid peroxidation products on the course of the disease even more significant.

Keywords: Inflammation, IBS, irritable bowel syndrome, oxidative stress

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THE ROLE OF INFLAMMATION AND OXIDATIVE STRESS IN CELIAC DISEASE

Nurcan Bayındır¹, Ferhat Şirinyıldız²

Aim: The aim of this study is to examine the relationship between celiac disease and oxidative stress, lipid peroxidation and inflammation.

Methods: In particular, we evaluated the articles published recent years in Pubmed, Google Scholar and Science Direct using the key words: celiac disease, inflammation and oxidative stress.

Results: Celiac disease is an autoimmune, multisystemic and chronic inflammatory process that causes gastrointestinal system involvement triggered by the intake of proteins called gluten found in grains such as wheat, barley, rye and oats. It is based on the detection of specific antibodies in serological tests, as well as villous atrophy, crypt hyperplasia, intraepithelial lymphocytosis in small intestinal biopsies. Studies have shown that plasmic reactive oxygen species (ROS) production is found to be significantly higher in patients who have not received treatment before and who do not respond to treatment compared to those who respond to treatment. In addition, the glutathione (GSH) concentration in the intestinal mucosa and blood of celiac patients was found to be lower than in healthy individuals. In clinical studies, it was determined that inflammatory markers increased significantly as well as oxidative damage parameters. It is seen that an inflammatory process occurs in celiac disease and oxidative damage increases in this process, resulting in DNA damage.

Conclusions: In conclusion, although the studies performed support oxidative damage and inflammatory processes, more research is needed to develop clinical approaches. In this way, further studies can develop combined treatments and discover new hopes for celiac patients.

Keywords: Celiac disease, DNA damage, inflammation, oxidative stress

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THE RELATIONSHIP BETWEEN DIABETIC FOOT ULCERATION AND OXIDATIVE STRESS

Ahmet Feyyaz Aydın¹ Ferhat Şirinyıldız²

Aim: The aim of this study is to examine the effects of oxidative stress event and damage to cells on the pathophysiology of diabetic foot ulceration.

Methods: In particular, we evaluated the articles published recent years in Pubmed, Google Scholar and Science Direct using the key words: diabetes, diabetic feet ulceration and oxidative stress.

Results: Diabetes is a chronic disease that threatens approximately 15-20% of the world's population. One of the tragic consequences of this disease is diabetic foot ulcerations. When we look at diabetic foot ulceration, it has been seen that uncontrolled Diabetes Mellitus (DM) causes autonomic neuropathies and peripheral neuropathies, and these neuropathies have an effect on diabetic foot and ulceration in the light of studies. Studies have shown that oxidative stress plays a role in the pathogenesis of diabetes. Oxidative stress triggers the formation of tissue damage by oxidizing DNA, carbohydrates, lipids and proteins. It has been determined that increased oxidative stress caused by hyperglycemia has an important effect on the formation process of DM and on the damage and progression of DM such as diabetic foot ulceration, and may pave the way for the development of various complications.

Conclusions: As a result, uncontrolled blood glucose level inevitably leads to oxidative stress and plays a role in the development of diabetic complications. The increase in oxidative stress also affects the wound healing process negatively and delays the healing. More studies are needed to clarify the oxidative mechanisms.

Keywords: Diabetes, diabetic feet ulceration, oxidative stress

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MASS SPECTROMETRY-BASED PROTEOMIC ANALYSIS OF SERUM SAMPLES FROM PATIENTS WITH TYPE 2 DIABETES AND ATHEROSCLEROTIC CARDIOVASCULAR DISEASE

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Aim: Diabetes is an important public health challenge due to its increasing prevalence in the world. More than 90% of diabetics are type 2 diabetics with insulin resistance in the background. Mass spectrometers (MS) are very popular instruments as they have the potential to obtain highly quantitative results for thousands of proteins compared to conventional methods. Thus, MS-based proteomic hold promise as powerful approaches to identify new biomarkers for diabetic patients. In this study, we aimed to reveal the protein profile of patients with type 2 diabetes and atherosclerotic cardiovascular disease (ASCVD) using the label-free proteomic approach.

Methods: First of all, abundant proteins such as albumin and globulins were removed from the serum samples included in the study by depletion method. Then, total proteins were denatured, alkylated and digested with trypsin enzyme, respectively. Tryptic peptides were analyzed by using the high-resolution tandem mass spectrometry system integrated with ultra-high pressure liquid chromatography. The raw data was then processed and Gene Ontology enrichment analysis was performed.

Results: In general, differentially expressed proteins (DEPs) associated with lipid transport, coagulation, inflammation, and oxidative stress were identified in serum samples from Type 2 diabetes and ASCVD. These proteins were involved in various cellular compartments such as extracellular matrix, vesicle, secretory granule lumen, and exosome. In addition, DEPs had important molecular activities such as peptidase inhibitory activity, glycosaminoglycan binding, serine-type endopeptidase activity, and enzyme inhibitory activity.

Conclusions: LC-MS/MS analysis revealed that significantly altered proteins in patients with type 2 diabetes and atherosclerotic cardiovascular disease. These indicate the potential of biomarkers, which requires further verification in a larger sample size.

Keywords: Tip 2 diabetes, atherosclerotic cardiovascular disease, serum, mass spectrometry, proteomics

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THE ASSESSMENT OF CD133, ALDH1 AND CD44 MARKERS IN CISPLATIN-INDUCED OVARIAN CANCER CELLS

Melike Ozgul-Onal^{1,2}, Dilan Cetinavci³, Elif Aylin Yuce Yoruk⁴, Gurkan Yigitturk¹,

Hulya Elbe¹, Feral Ozturk¹

Aim: The study aimed to investigate the effects of cisplatin on A2780 and PEO4 ovarian cancer cells via stem cell markers.

Methods: This proje supported by Mugla Sitki Kocman University Scientific Research Projects Coordination Unit (protocol no: 21/131/01/3/4). Non-resistant A2780 and chemo-resistant high grade serous ovarian carcinoma PEO4 cell lines were cultured for 24, 48 and 72 hours with either DMSO alone (vehicle control) or the different dose of cisplatin (3, 2, 1.5, 1, 0.5 and 0.25 µg/mL). WST-1 assay was performed to determine IC₅₀ values and western blotting analysis was performed using the 0.5 µg/mL and 1.5 µg/mL cisplatin for 24 hours to measure protein levels of CD133, ALDH1 and CD44.

Results: The IC₅₀ values for A2780 and PEO4 cells were determined as 1.539 µg/mL and 1.519 µg/mL, respectively. In PEO4 cells, while ALDH1 expressions did not show a significant difference, CD133 expression was significantly upregulated in cisplatin-treated groups compare to control group and CD44 expression was not detected. For A2780 cells, the expresions of three protein was not detected.

Conclusions: Choosing an effective treatment strategy for recurrent cancers is difficult. Most first-line chemotherapy drugs like cisplatin induce apoptosis and therefore cancer cells overexpress anti-apoptotic proteins and develop resistance. Drug resistance against cisplatin by various mechanisms affects the ovarian cancer treatment process. CD133, ALDH1 and CD44 proteins are used as biomarkers in common in cancer stem cell and drug resistance studies. In this study, we found the levels of CD133 and ALDH1 levels did not decrease in ovarian cancer cells as a result of cisplatin treatment. This is thought to indicate that cisplatin has no effect on cancer stem cell markers. It is thought that the cisplatin could only affect differentiated cancer cells, not cancer stem cells that have dormancy, proliferation, differentiation, metastasis and drug resistance abilities.

Keywords: Ovarian cancer cells, cisplatin, CD133, ALDH1, CD44.

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ABSTRACTS BOOK

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BANDIRMA – BALIKESİR / TÜRKİYE

EVALUATION OF COMPLIANCE WITH STANDARD PRECAUTIONS AND BURNOUT LEVELS OF NURSES IN A HOSPITAL

Mine Tepetaş¹, Alaettin Ünsal², Ali Kılınç³, Feyza Nehir Öznur Muz⁴, Didem Arslantaş⁵, Halime Küçük⁶

Aim: Standard precautions are guidelines, including both healthcare workers' and patients' health, to prevent transmission of infection and control its spread. It is thought that the burnout and loss of motivation caused by the increasing workload of healthcare workers are associated with healthcare-associated infections. The study aimed to evaluate nurses' compliance with standard precautions and burnout levels.

Methods: This is a cross-sectional study conducted on 392 nurses working in a university hospital in Turkey between January and February 2022. To evaluate compliance with standard precautions of clinical nurses, the Compliance with Standard Precautions Scale (CSPS) and to evaluate the level of burnout, Maslach Burnout Inventory was used. By face-to-face interview method, the researchers filled the questionnaire prepared per literature. Mann Whitney U test, Kruskal Wallis test, and Spearman correlation analysis were used.

Results: In the study group, 327 (83.4%) were female, and 31.49 ± 7.5 was the mean age. The mean score of the nurses from the CSPS was 13.7 ± 3.3 . Having more professional experience, working in the same unit for more than 3 years and attending in-service training about infection control increased compliance with standard precautions. It was determined that there was a negative relationship between nurses' CSPS scores and scores taken from emotional burnout sub-dimension ($p=0.041$, $r=-0.103$) and depersonalization sub-dimension ($p=0.001$, $r=-0.163$), and a positive relationship with personal achievement sub-dimension ($p<0.001$, $r=0.250$) of Maslach Burnout Inventory.

Conclusions: Measuring compliance with standard precautions will create awareness to identify risky behaviors and avoid infection and occupational hazards for themselves and their patients. Compliance of nurses with standard precautions levels of the participants were thought to be moderate. It was thought that compliance with standard precautions would increase by updating the information of nurses with in-service trainings.

Keywords: Burnout, hospital, infection, nurses, standard precautions

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BIBLIOMETRIC ANALYSIS OF THESES ON HEALTH LITERACY IN TURKEY

Furkan Alp¹, Mustafa Mete²

Aim: This study aims to examine bibliometrically the theses published in the Council of Higher Education (YÖK) Presidency Thesis Center on the subject of health literacy with the determined parameters.

Methods: The study population consists of 178 master's and doctoral theses published between 2011 and 2022. The theses were evaluated in terms of bibliometric parameters according to type, year, language of publication, gender of authors, undergraduate status of authors, title of advisor, province, university, institute, department, research method, data collection method, page range and keywords used.

Results : Considering the results of the study, it was determined that studies on health literacy have been conducted mostly at the master's level until today. In general terms, it can be said that studies on health literacy have increased as of 2019 and studies on health literacy have gained momentum in recent years. According to the language of publication of the postgraduate theses on health literacy, it is seen that the majority of the thesis studies are written in Turkish, and according to the gender of the authors, female authors show more interest in health literacy. According to the research method of the postgraduate theses on health literacy, it was determined that quantitative research methods were used in the vast majority; according to the data collection method, survey method was used in the vast majority. According to the distribution of the most commonly used keywords in the postgraduate theses on health literacy; health literacy level, quality of life, e-health literacy are in the first three places.

Conclusions: The results of the study show that the importance of the concept of health literacy has increased in recent years. In addition, the concept of health literacy has become a concept that is subject to the fields of nursing, health management and public health.

Keywords: Health literacy, graduate theses, bibliometric analysis

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ANALYSIS OF THE RELATIONSHIP BETWEEN HEALTHCARE PROFESSIONALS' PERCEPTIONS OF ORGANIZATIONAL SUSTAINABILITY AND GLOBAL SOCIAL RESPONSIBILITY

Bilgen Şimşek¹, Mustafa Mete²

Aim: To examine the relation between organizational sustainability and global social responsibility from the perspective of health professionals. Data came from the Global Social Responsibility scale, which contains five sub-dimensions, and Organizational Sustainability scale, which five sub-dimensions too.

Methods: Total 467 healthcare professionals were subjected to questionnaire who are employed in private hospitals in Istanbul. The scales were proven to be valid and reliable.

Results: All sub-dimensions were found to have a significantly positively associated with each sub-dimensions as, action-oriented responsibility sub-dimension with the social ($r=0,457$), cultural ($r=0,433$), environmental ($r=0,427$), economic ($r=0,389$), administrative ($r=0,427$) sustainabilities, and the general dimension of organizational sustainability ($r=0,483$), ecological responsibility sub-dimension with the social ($r=0,337$), cultural ($r=0,336$), environmental ($r=0,295$), economic ($r=0,349$), administrative ($r=0,367$), sustainabilities and the general dimension of organizational sustainability ($r=0,376$), altruistic responsibility sub-dimension with the social ($r=0,398$), cultural ($r=0,423$), environmental ($r=0,318$), economic ($r=0,386$), administrative ($r=0,414$), sustainabilities, and the general dimension of organizational sustainability ($r=0,435$), national responsibility sub-dimension with the social ($r=0,451$), cultural ($r=0,489$), environmental ($r=0,437$), economic ($r=0,465$), administrative ($r=0,467$), sustainabilities, and the general dimension of organizational sustainability ($r=0,516$), the general dimension of global social responsibility with the social ($r=0,482$), cultural ($r=0,483$), environmental ($r=0,442$), economic ($r=0,450$), administrative ($r=0,476$) sustainabilities, and the general dimension of organizational sustainability ($r=0,526$).

Conclusions: As a result, a statistical association between health workers' perceptions of their global social responsibility and their perceptions of the sustainability of their organizations has been determined. With the perception of global social responsibility, the findings will serve as a significant body of literature in establishing the roles that employees in the health sector can act in organizational sustainability.

Keywords: Global social responsibility, organizational sustainability, health care

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COMPARISON OF ANTI-INFECTIVES FOR SYSTEMIC USE AND CURRENT HEALTH EXPENDITURE PER CAPITA IN TÜRKİYE AND FRANCE

Yasemin Aslan¹, Orhan Zengin²

Aim: Anti-infectives are medicines that work to treat or prevent infections. This study aimed to compare anti-infectives for systemic use and current health expenditure per capita in Türkiye and France.

Methods: The data was obtained from the Organization for Economic Co-operation and Development (OECD) database. Descriptive statistics were used for data analysis. The Spearman Correlation Test was used to determine the relationship between anti-infectives for systemic use and current health expenditure per capita, and the Mann Whitney-U test was used to reveal the differences between the two countries.

Results: Considering the average distribution of the values of the variables according to the countries, it was detected that the average of anti-infective use (defined daily dose per 1000 people) is 38.93 (± 5.14) in Türkiye, while it is 29.14 (± 1.36) in France. While the current health expenditure per capita was 1461 (± 635.77) in Türkiye (₺), it was found to be 3786.44 (± 212.97) in France (€). A statistically significant difference was found between Türkiye and France when the average of anti-infective use (defined daily dose per 1000 people) of the countries was compared by years ($p < 0.05$). Anti-infective use is higher in Türkiye than in France. In addition, a strong negative correlation was found between the use of anti-infective medicine and current health expenditure per capita.

Conclusions: The high current health expenditure per capita may decrease the rate of anti-infective medicine use due to the decrease in diseases within the scope of health promotion activities.

Keywords: Anti-infectives, current health expenditure, Türkiye, France

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REMOTE HEALTH CARE PRACTICES AND LEGISLATION IN TURKEY

Yasin Cetin¹

The COVID-19 pandemic, which affects the whole world in every field, has of course forced a change and transformation in the provision of health services, as in every field in our country. This change in the provision of health services has led to the provision of remote health services such as telemedicine, telehealth and e-health. The World Health Organization (WHO) has defined telemedicine as health services provided by using technology in subjects such as education of health professionals for the diagnosis, treatment or prevention of diseases in order to improve the health of an individual or society in situations where distance is at the forefront. According to a different definition made by the European Commission, telemedicine has traditionally been defined as the provision of health services using communication and information technologies rather than the face-to-face interaction of the patient and the physician. In our country, telemedicine is defined by the Turkish Ministry of Health (TMH) as "a system that allows accessing images of radiological examinations on the web 7x24, reporting these images, conducting teleconsultation between radiologists, evaluating medical images and reports in terms of quality, and sharing them with citizens through the e-Pulse application". has been defined as.

Although the definition of telemedicine was made in our country, unfortunately, it was very difficult to act in parallel with the application examples in the world due to the lack of legal regulations. Because providing telemedicine or telehealth services from a distance was considered a crime. However, with the Regulation on the Delivery of Distance Health Services published in the Official Gazette No. 31746 on February 10, 2022 by the TMH, in order to serve the provision of health services independently of the place and geography and based on modern medical technology; The procedures and principles regarding the scope of remote healthcare services, allowing healthcare facilities to provide remote healthcare services, developing and registering remote healthcare information system, and auditing healthcare facilities within this scope have been taken into consideration and placed on a legal basis.

In this direction, it is thought that accessibility to medical services will increase with remote health services in our country, patients can receive treatment earlier and better comply with treatment, and the quality of life of patients with chronic diseases will increase.

Keywords: Health legislation, health policies, remote health care

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CONCEPT OF SUSTAINABLE MARKETING IN HEALTHCARE

Furkan Alp¹, Ahmet Genç²

Aim: The aim of this study is to reveal the role of sustainable marketing approach in health services and how it can be effectively implemented in the light of related literature.

Methods: The concept of sustainability, its relationship to marketing, sustainable marketing, and sustainable marketing in healthcare services are all discussed in this study. The purpose, methodology, and main findings of studies on sustainable marketing in healthcare services were evaluated. The studies were searched using the keyword "Sustainable Marketing in Healthcare" in Web Of Science, Science Direct and Google Scholar databases covering the years 2000-2022. A total of 1289 studies were identified as systematic reviews on the subject, and 15 studies that met the inclusion criteria were analyzed.

Results: The reviewed studies were listed in the literature summary table according to their publication dates. The title of the article, the purpose of the study, the research model, the research method, the main findings, the place where the studies were conducted and the journals in which they were published were explained in detail.

Conclusions: Marketing in Health Services should be managed appropriately in order to meet the demands of a competitive market. According to studies, long-term patient relationships and a value-based management approach between the patient and the healthcare organization are essential for ensuring sustainability in healthcare organizations. A long-term patient-health institution relationship can be built on the more effective use of sustainable marketing tools and materials by healthcare organizations and managers, in which environmental and social factors are considered holistically. In this regard, the presence of sustainable marketing in healthcare services enables complete control over the consumer, maintaining consumer perception and behavior while providing long-term profit return to the business.

Keywords: Sustainable marketing, green marketing, social marketing, critical marketing, healthcare

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EXAMINATION OF COGNITIVE STRUCTURES FOR THE CONCEPT OF RARE DISEASE: THE CASE OF HEALTH MANAGEMENT STUDENTS

Dolunay Özlem Zeybek¹, Havva Nur Atalay², Dilara Arslan³

Aim: Rare diseases are diseases with a prevalence of less than 1/2000 in the population. 80% of these diseases are caused by genetic and 20% by environmental or idiopathic reasons. Rare diseases affect more than one system of the individual and reduce the quality of life. The rarity of these diseases causes low awareness in the society. It is expected that the level of awareness of those working in the health sector will be higher. For this reason, within the scope of the study, it is aimed to determine the cognitive structures of the health management students who will work in the health sector in the future, towards the concept of "rare disease".

Methods: The study was conducted with the 4th grade students of Bandırma Onyedi Eylül University, Faculty of Health Sciences, Health Management Department. Sample selection was not made and it is aimed to reach the entire universe. In the study, 66.6% of the population (108) was reached. The word association test (KIT) was used as a data collection tool. The data collection form prepared in this context was applied online. In the form, students were asked to write 10 words and/or phrase related to the concept of "rare disease" within 60 seconds and also a sentence related to these words within 30 seconds. Content analysis, one of the qualitative data analysis types, was performed in the study. In the data obtained, the same expressions were collected, categorized and themes were determined.

Result: The data obtained within the scope of the study were transferred to the excel file and the frequency table was to get. As a result of removing the repeated words from 385 words, it was reduced to 178 words. Words with less than 5 repetitions (80.3%) were excluded from the analysis, and they were divided into 35 words, 5 themes and 4 sub-themes. The most repetitive words are 49.9% "Infrequent", 28.5% "Cancer" and 21.9% "SMA". The main themes for the concept of rare disease; rare disease characteristics (health-related and other), diseases (rare diseases and other), challenges, impacts, and social action.

Conclusions: According to the results of the study, it is seen that the level of awareness of the 4th grade health management department students about the concept of rare disease is low. From this point of view, it is recommended to carry out studies to increase the awareness level of students.

Keywords: Rare disease, word association test, content analysis

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THE EFFECT OF FEAR OF VIOLENCE ON WORK ENGAGEMENT: A STUDY ON PHYSICIANS

Servet Alp¹

Aim: The aim of this study is to determine the fear of violence and work engagement levels of physicians and to reveal whether there is a statistically significant difference according to socio-demographic and other characteristics. Another aim of the research is to determine the relationship between fear of violence and work engagement, and to perform a regression analysis based on this relationship.

Methods: A public hospital constitutes the universe of this research, in which a cross-sectional design based on an empirical approach is used. In the study, in which convenience sampling method was used, data were collected from 276 physicians. Analyzes were performed using AMOS 23.0 and IBM SPSS 27.0 package program. As a result of the analysis, it was determined that the measurement tools were highly reliable and valid.

Results: As a result of the analysis; the level of fear of violence; gender, marital status, exposure to violence by the patient, witnessing violence, education level, time spent in the profession; the level of work engagement; It was found that there was a statistically significant difference according to marital status, being exposed to violence by the patient, witnessing violence, education level, time spent in the profession, unit of work and working style ($p<0.05$). In addition, a moderate negative correlation was found between the fear of being exposed to violence and being engaged in work ($p<0.01$); In the path analysis, it was revealed that the fear of being exposed to violence negatively affects the engagement to work ($p<0.001$).

Conclusions: Elimination of violence and fear of violence is important for the sustainability of health system delivery so that physicians can work in a healthy, friendly and motivated manner.

Keywords: Fear of violence, job engagement, physician, health policy.

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DETERMINATION OF TREATMENT SATISFACTION AND MEDICATION ADHERENCE OF PATIENTS RECEIVING ANTITHROMBOTIC THERAPY IN A COMMUNITY SETTING

Emre Düzenli¹, Songül Tezcan², Fatıma Ulya Yuruk^{3,4}

Aim: Antithrombotic drugs are high-risk drugs and their side effects are the most important problems that negatively affect compliance with medication and treatment. The aim of our study is to evaluate medication compliance and treatment satisfaction in patients receiving anticoagulant and antithrombotic therapy in a community pharmacy.

Methods: This study was cross-sectional, prospective, and consisted of patients receiving antithrombotic and anticoagulant therapy. It was conducted in a community pharmacy in Istanbul. The Medication Adherence Report Scale (MARS) and the Duke anticoagulant satisfaction scale (DASS) were administered face-to-face to the patients. SPSS 15.0 statistical program was used for the analysis.

Results: The median age of the patients was 79 and 62% of them were female patients. The median duration of anticoagulant use of the patients was 3 years, and 40% of them were using clopidogrel. The patients' median MARS score was found to be 22 and the median DASS total score was 39. DASS total score and its subdimensions were found to be significantly positively correlated ($p<0.001$). Patients with low educational levels and patients using warfarin were found to have a higher DUKE total score ($p<0.05$).

Conclusions: According to the results of our study, although the patients' medication adherence scores and treatment satisfaction were high, it was found to be lower in patients with low education and warfarin use. Therefore, considering these results, it may be important to provide drug information counseling services to patients receiving anticoagulant and antithrombotic treatment.

Keywords: Antithrombotic therapy, medication adherence, treatment satisfaction

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THE EFFECT OF COMPASSION FATIGUE ON JOB STRESS AND INTENTION TO LEAVE. A STUDY ON NURSES

Turhan Moç¹

Aim: Compassion fatigue is a relatively new concept that can be wearisome and place extra cognitive and emotional burdens on employees. Nurses are one of the most intense and important employees in patient care services in the health sector. It can lead to compassion fatigue in nurses who have close and intense face-to-face relationships with patients under emotionally challenging and stressful work conditions. Based on this, in this study, the effects of compassion fatigue in nurses on turnover intention and job stress were examined.

Methods: Quantitative research method was used in this study, which was carried out on nurses who have important roles in the health of patients. The data of the study were collected by online survey technique via Google Form. Frequency analyzes were used to determine the demographic information of the participants through statistical analysis programs. T-test and ANOVA analyzes of variance were used to determine the difference between demographic variables and the variables subject to the study. In addition, path analyzes were used to test the hypotheses of the study.

Results: As a result of the analyzes, it was seen that the level of compassion fatigue experienced by nurses was 58.5%, the level of work stress was 84.6% and the level of intention to leave the job was 69.1%. In the study, significant differences were found between compassion fatigue and choosing the profession willingly. In the study, significant differences were found between job stress and marital status, choosing the profession voluntarily, location, age, seniority and working hours. In the study, significant differences were found between the intention to leave the job and the marital status, choosing the profession voluntarily, location, seniority, and working hours.

Conclusions: In the study, it was determined that compassion fatigue had a positive and statistically significant effect on job stress and intention to leave.

Keywords: Compassion fatigue, job stress, intention to leave.

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EFFECT ON COMPENSATION, MOTIVATION AND COMMITMENT PERFORMANCE IN HEALTHCARE PROFESSIONALS

Abdullah Çetin Yiğit¹, Muhammet Gümüş², Sibel Orhan³

Aim: Human Resources (HR) depends on the journey of the personnel involved in running the operational activities of a business or organization. It is an important factor for businesses to continue to develop their HR skills in order to achieve their goals and objectives. Many factors affect the performance of the personnel working in the enterprises. These factors are listed as factors that affect the performance of employees such as motivation, wages and commitment. This study aims to examine the effect of motivation, compensation and commitment on the performance of the health personnel of four private hospitals in Istanbul.

Methods: The population of the study consists of 329 people and the sample is based on 181 health personnel. The sample method used in this study constitutes a random sampling selection based on stratified random sampling. The entire sample of hospital health personnel consists of nurses and midwives. In order to determine the effect of each variable, it is necessary to analyze and diagnose the relationship between the variables related to motivation, pay and commitment and the performance of health personnel.

Results: According to the findings, the wage was counted as 0.386 with a value of 0.049 from the explaining value according to the health management. This is a success over what has been learned as the resulting value value is above 0.05. The path explaining the motivation in display on the health sector is 0.554 with a value of 0.035. This means that motivation has a significant impact on the realization of health promotion.

Conclusions: As a result, wages have a significant impact on the performance of health personnel. It is seen that job motivation has an effect on employee performance. In this study, the variables included only motivation, pay, performance and commitment. In future studies, the variables should be expanded to better reflect the research conditions in more detail, and it is aimed to enlarge the sample to cover the general health personnel and to shed light on future studies.

Keywords: Compensation, motivation, loyalty, paramedic performance.

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EXPECTATIONS FROM GOOD MANAGEMENT OF THE SERVICE IMPLEMENTED IN THE HEALTH SECTOR WITHIN THE SCOPE OF COVID-19: A PRIVATE HOSPITAL EXAMPLE

Abdullah Çetin Yiğit¹, Sibel Orhan², Muhammet Gümüş³

Aim: Health services are included in the scope of non-deferrable and urgent services. With the emergence of the corona virus pandemic in 2019, disruptions have begun to occur in the health services that individuals receive in hospitals. For this reason, the complexity and causes of health care delivery continued to increase gradually. In this context, the researcher's aim is to determine the practices that are expected to be carried out to improve the management in the delivery of health services applied in a private hospital in Ankara within the scope of the Covid-19 pandemic.

Methods: In the research, qualitative and quantitative methods were used together. Case study design from qualitative methods and nonprobabilistic sampling technique from quantitative methods were applied in the study. 20 health personnel working in a private hospital in Ankara participated in the research. First, face-to-face interviews were conducted with the participants, and then the questionnaires prepared were hand-delivered to the participants. Necessary permissions were obtained from the institution and after the necessary information about the research was given to the participants, questionnaires were applied on a voluntary basis. Data were entered manually using Excel and SPSS program.

Results: 65% of the participants stated that good management practices are faced with the difficulties caused by bureaucratic factors. 80% of the respondents reported that favoritism hinders good management practices. 65% of the participants determined that good management in health service delivery increases respect.

Conclusions: Equity in health, justice, technological developments, efficiency, inclusiveness, etc., in terms of improving management in the research. It was concluded that the factors revealed positive interactions. In the provision of health services applied in health institutions, it is recommended that administrative units apply the factors that improve management in the field. In addition, a hospital fund should be created to meet the technological needs by receiving government incentives. In order to improve the quality of health services delivery, distinctive health policies should be put forward. All healthcare professionals should meticulously comply with the bureaucratic rules to be determined by the hospital management in order to improve the management.

Keywords: Healthcare delivery, healthcare users, Covid-19, improving management

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IN THE CONTEXT OF HEALTH DIPLOMACY: A GENERAL ASSESSMENT OF TURKEY'S WORK IN SOMALI

Mohamud Mohamed Farah¹

Aim: The country of Somalia, one of the sub-Saharan countries in eastern Africa, has collapsed due to war in many areas of the country, especially in the health sector, along with the fight against terrorism. The damage and destruction that the health sector has suffered under the influence of the war has exacerbated the complete lack of medical care throughout the country, as people do not have access to medical care. With the establishment of friendly relations between Turkey and Somalia, an agreement was reached to provide health care and social support to the Somali people.

Methods: We will thoroughly review the research and articles conducted in Somalia

Result: Finally, these relief activities that Turkey has carried out in Somalia have benefited the Somali state, and at the same time, by restoring friendship in Somalia, Turkey has strengthened the relations of decency between the two countries by taking advantage of these opportunities that have arisen in the Turkish win-win rule.

Conclusions: According to Turkey, the drought in Somalia in 2011 opened a new eye. Turkey notes that NGOs in Turkey carried out relief activities in Somalia, which are referred to as "humanitarian aid" in Somalia. The beneficiaries of these operations have been the Somali people. Some NGOs have conducted cataract operations and others have rebuilt hospitals in Somalia. For this reason, hospitals in Somalia, including Recep Tayyip Erdogan Hospital and Digfer Education and Research Hospital, as I will call it, have provided free health care for people who need education and research medical care in Turkey without the hospitals charging a fee.

Keywords: Somali health, health diplomacy, health.

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REFLECTION OF THE INCREASE IN HEALTHCARE PROFESSIONALS TO REGIONAL SPECIALIZATION DURING THE PANDEMIC IN WESTERN MARMARA REGION

Ayşe Nur Çiftçi¹

Aim: Healthcare workers mostly work in the formal labor market. Unlike the informal labor market, the formal labor market has higher incomes and it provides job security. While entering the pandemic period, the share of 664 thousand health workers in the 22 million formal labor market in 2019 was just over 3%. The share of healthcare workers exceeded 3.1% in 2020 with new hires due to the pandemic. The proportional increase in the number of healthcare workers has almost doubled the proportional increase in the formal labor market as a whole. This study also pursued two objectives: 1) To determine the regional specialization of health workers in five provinces in Southern Marmara, 2) How new recruitments between 2019-2020 reflected on regional specialization.

Methods: The statistical method used in the study is location quotient and the data were compiled from TUIK and SGK.

Results: Edirne, one of the provinces in Western Marmara, is the province with the highest regional specialization in healthcare professionals. In Kırklareli and Tekirdağ, it is seen that even the beginning of specialization in physicians has not been reached. However, in general, it is seen that the recruitment of health workers between 2019-2020 has partially improved in the provinces with low specialization in Western Marmara, while it has led to a partial decrease in provinces with high specialization.

Conclusion: It is seen that regional specialization is quite strong in Edirne, which has the most established medical faculty among the provinces in Western Marmara, and the same success cannot be achieved in other provinces. However, it was concluded that the recruitment of new healthcare workers accelerated by the pandemic led to a limited improvement, especially in the Southern Marmara provinces where specialization is weak.

Keywords: Social politics, health politics, pandemic, family medicine, LQ.

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REGIONAL AGGLOMERATION IN FAMILY MEDICINE IN THE WHOLE OF PHYSICIANS DURING THE PANDEMIC PERIOD AND THE WESTERN MARMARA SUB-REGION

Ayşe Nur Çiftçi¹

Aim: The aim of this study is to analyze the development of the regional agglomeration in family medicine in the provinces of Western Marmara during the COVID-19 pandemic, which constitutes the biggest health crisis of recent years.

Methods: In this study, regional agglomeration levels were determined by the location quotient technique. The data used in the study includes the years 2019 and 2020. The data were compiled from the Ministry of Health, TUIK and SGK. In order to determine the regional agglomeration in family medicine, the agglomeration levels were analyzed according to the presence of physicians working in each institution, regardless of the separation of Ministry of Health and other institutions.

Results: There are significant differences in the level of specialization in family medicine in the five provinces of the Western Marmara region. Hereunder, according to the presence of physicians working in the Ministry of Health, the LQ values in family medicine from 2019 to 2020 increased from 1.34 to 1.35 in Tekirdağ, increased from 1.08 to 1.12 in Balıkesir, increased from 0.96 to 1.01 in Edirne, and increased from 0.91 to 0.94 in Çanakkale; while It went down from 1.06 to 1.01 in Kırklareli. These values indicate the existence of an agglomeration well above the LQ values for family medicine in the three metropolitan areas. However, there are also provinces in the country where much higher regional agglomeration is experienced. When the calculation is made according to the presence of all physicians, regardless of institution, there is a significant increase in LQ values, with the exception of Edirne. Accordingly, from 2019 to 2020, the LQ values increased from 1.34 to 1.37 in Balıkesir and increased from 1.28 to 1.31 in Tekirdağ, increased from 0.93 to 0.96 in Çanakkale and increased from 0.64 to 0.68 in Edirne; while it increased from 1.34 to 1.37 in Kırklareli

Conclusion: According to the presence of physicians, the regional agglomeration in family medicine is high in Tekirdağ, Balıkesir and Kırklareli, while it is close to the national average in Çanakkale. In Edirne, on the other hand, it is seen that the regional agglomeration in family medicine is even lower than in Ankara, especially with the effect of the strong staff of the medical faculty, which is a regional education center.

Keywords: Social politics, health politics, pandemic, family medicine, LQ.

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PHARMACOGENETIC PRACTICES IN THE FIELD OF ONCOLOGY IN THE FRAMEWORK OF PERSONALIZED MEDICINE

Ebru Şal¹, Gizem Özargun², Sena Bakır³, Betül Akalın⁴

In the general understanding of medicine, the focus was on diseases and epidemics, and it was thought that it would be appropriate to apply the same treatment methods in people with the same disease. Although it is known that certain drugs affect certain patients, it is difficult to predict which drug will be more effective and safer for which patient. One of the most important reasons for the variability of the drug response is that people have different genetic structures. Pharmacogenetics, on the other hand, is a science that examines the response of the individual's unique genetic changes to drugs. Unnecessary drug costs are eliminated with the drugs given in an accurate and sufficient dose specific to the patient's genetic structure, and economic losses covering the labor force and time are prevented. This review aimed to review pharmacogenetic application studies in the field of national and international oncology between 2010 and 2022 by providing information on pharmacogenomics, pharmacogenomics, personalized medicine, and precision medicine. The research was carried out by searching for "pharmacogenetic" and "oncology" keywords from PubMed and Google Scholar browsers. The year of the research, the subject of the research, and the sample type were examined in terms of variables, and a total of 23 articles were reached. In the study in which next-generation sequencing is discussed in the development of oncological drugs, the findings reveal that drugs that specifically target these mutations can be designed by determining the mutations in DNA sequences in cancer disease, which is a genetically variable formation. In conclusion, pharmacogenetic applications in personalized medicine are safer and more cost-effective than existing treatments, especially in diseases such as cancer where multiple drug treatments are applied, in choosing the right drug and dose, in preventing side effects, and in developing new treatment options.

Keywords: Personalized medicine, pharmacogenomics, precision medicine, genome studies

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EVALUATION OF THE FINANCIAL PERFORMANCE OF LARGE-SCALE HEALTH INSTITUTIONS BY THE ARAS METHOD

Arzu Bulut¹, İnci Merve Altan²

Aim: In this study, it is aimed to examine the financial performances of large-scale health institutions operating in the human health services sector in the 2017–2021 period, whose data are published by the Central Bank of the Republic of Turkey (CBRT). Financial performance measurement is the evaluation of an organization's output as a result of management decisions over the organization's resources and the implementation of those decisions by members of the organization. Financial sustainability is an important issue for almost all healthcare institutions. The sustainability of health institutions largely depends on the level of success in their financial performance. The first step to financial success is to identify the current situation and take the necessary steps regarding it. Undoubtedly, this will contribute to the efficiency and sustainability of health institutions.

Methods: The financial performances of large-scale enterprises operating in human health services were evaluated with the ARAS method. In the ARAS method, the utility function values of the alternatives are compared with the utility function value of the optimal alternative, and the performance rankings of the alternatives are obtained. In the ARAS method, the years 2017–2021 were taken as an alternative. The current ratio, liquidity ratio, turnover rate of receivables, leverage ratio, return on assets ratio, and return on equity ratio of large-scale health institutions operating in human health services announced by the CBRT were used as criteria. These ratios are the preferred ratios in most of the studies on financial performance evaluation.

Results: When the financial performance of large-scale enterprises operating in the human health services sector in the 2017-2021 period is analyzed by the ARAS method, it is observed that 2018 was the year with the best performance in the analysis period, while the year with the lowest performance was 2019.

Conclusions: When the financial data of large-scale enterprises operating in human health services are examined, it is observed that the working capital was better planned in 2018, when the financial performance was the best. It was observed that in 2019, when it had the lowest performance, it did not direct its assets to suitable investments compared to other years and left them idle. In the years 2020-2021, which cover the pandemic period, it is thought that the reason for the financial performance to have performed slightly better than before the pandemic is a reflection of the support given to health institutions.

Keywords: Financial analysis, financial performance, health institutions, ARAS analysis

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THE EFFECT OF THE PANDEMIC ON THE DIABETES CARE OF TYPE 2 DIABETES MELLITUS PATIENTS

S. Lubeyne Soylemez¹, Akın Dayan², Refik Demirtunc³, Mesut Sancar⁴

Aim: The aim of this study was to evaluate the impact of the COVID-19 pandemic on diabetes care among patients who have type 2 diabetes mellitus.

Methods: One hundred and fourteen patients with type 2 diabetes mellitus were conducted to study. Their habits of regular exercise, regular diet, frequency of regular blood glucose measurements, frequency of regular eye examination and cardiovascular disease examination were evaluated with an aspect before and after the pandemic. Their results were recorded as doing regularly or not doing regularly.

Results: Of the 114 patients included in the study, 50% were female. The mean age was 60.10± 9.89. Of them, 65.8% were low-educated patients. The proportion of patients with a smoking history was 23.7%, while those with an alcohol usage history were 7.9%. Statistically, a significant decrease was observed in the exercising habits of the patients (42.1% vs. 31.6%, p=0.029). No significant difference was observed in the frequency of blood glucose measurement, dietary habits, and frequency of eye and cardiovascular disease examination (p>0.05). There is no statistically significant difference between the gender in terms of exercise before the pandemic (49.1% of men vs. 35.1% of women), while a statistically significant difference was found during the pandemic (43.9% of men vs. 19.3% of women). The mean age of those who exercised before the pandemic was 62.54±9.32, while 60.11±11.00 during the pandemic. Nineteen people with a mean age of 63.05±0.5 years stopped exercising during the pandemic.

Conclusions: During the Covid-19 pandemic, a significant change was observed in the exercise habits of the patients. This situation is thought to be due to the fact that patients are accustomed to a sedentary life due to the pandemic. Furthermore, women and the elderly stopped exercising more during the pandemic. However, more research is needed on this subject.

Keywords: Diabetes mellitus, covid 19, exercise, diabetes care

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COMPARISON OF OECD COUNTRIES IN THE CONTEXT OF HEALTH PROFESSIONAL MIGRATION

Sena Bakır¹, Ebru Şal², Betül Akalın³

The number of health workers who migrated abroad with effect of globalization continues to increase today. This situation may cause health professional inequality between countries. The aim of this study is to compare OECD countries in the context of health worker migration and to correlate the health indicators of the countries that receive the most and the least immigrants in the context of the subject. Within the study, the number of educated foreign physicians and nurses in OECD countries between 2010-2020 were compared and their immigration levels were examined. Between the same periods, health indicators such as the number of physicians-nurses per 1000 people in these countries, infant mortality rates by years, life expectancy at birth, potential life years lost were determined and the relationship between the level of immigration and the health indicators of the countries was examined. As a result of research, 3 countries with the highest number of physicians-nurses (USA, UK, Canada) and 3 countries that received the least immigration of physicians-nurses (Turkey, Latvia, Lithuania) were identified. When these countries are compared with their situation 10 years ago, it has been determined that all of countries that receive more and less immigration have improved at different levels in their general health indicators. When compared among themselves, it has been determined that the countries that receive the most immigration have higher levels of improvement in health indicators such as the number of physicians and nurses per capita, infant mortality rate, life expectancy from birth and potential years of life lost. As a result of the research, it was determined that the amount of immigration and health indicators of countries increased at the right rate. Although the improvement in health indicators cannot be explained only by immigration, it can be thought that immigration has an effect on health indicators.

Keywords: Migration, health workforce, OECD

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A STUDY ON THE INVESTIGATION OF HEALTH SEEKING BEHAVIOR IN HEALTH MANAGEMENT STUDENTS

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Aim: The aim of this study is to examine health seeking behaviors of health management students and to reveal whether various socio-demographic characteristics are effective on health seeking behavior.

Methods: The population of the study consists of students studying in the health management department of two different universities (N=775). Sample selection was not made in the study, and data were collected from a total of 465 students. In the study, a scale consisting of 12 items and 3 sub-dimensions (online search behavior, professional search behavior and traditional search behavior) developed by Kırac and Öztürk was used to measure the health seeking behavior of the participants. The data obtained in the study were analyzed with the SPSS 24.0 program and descriptive statistical methods, t-test in two independent groups and one-way analysis of variance were used in the analysis of the data.

Results: In the study, the general average of the scores given by the students to the health-seeking behavior scale was determined as 3.18 ± 0.64 . When the average scores of the answers given by the participants to the sub-dimensions of health seeking behavior were examined, it was seen that the highest score was given to the professional search behavior (3.97) and the lowest score to the online search behavior (2.78). In the study, it was determined that the online search behaviors of the participants differed according to age; professional search behaviors differed according to gender, having any chronic diseases and smoking status. Finally, a statistically significant difference was found between the health seeking behavior total score and gender and smoking status in the study.

Conclusions: In the study, it was determined that the health seeking behaviors of the students were at a moderate level. In this context, it is recommended to increase students' awareness of health seeking behaviors and to offer trainings such as health literacy.

Keywords: Health, search behavior, health management students

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REASONS FOR PREFERRING TRADITIONAL AND COMPLEMENTARY MEDICINE

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Modern medicine is based on scientific knowledge. It is objective and universal. Apart from modern medicine, treatments are also carried out under the name of traditional and alternative/complementary medicine. According to the definition of the World Health Organization (WHO), traditional medicine; It is all of the knowledge and practices used in all processes of health protection, disease prevention, diagnosis and treatment, based on the beliefs, theories and experiences of various cultures, explained or unexplained. Complementary medicine or alternative medicine terms; defined as practices that are not related to the country's own tradition and that are not integrated into the existing health system. Although it is very old, it is still used quite a lot. High usage rates such as 80% in African countries, 70% in China, 70.4% in Canada, 60.5% in Turkey, 49.3% in France and 42.1% in America draw attention. The aim of the study in the light of the information obtained; It has been to examine why people prefer traditional and complementary treatment methods instead of modern medicine today. It has been observed that there are many factors in the selection of these treatment methods, which are preferred especially in diseases that cannot be cured. Discontent in modern medicine is one of the most common causes of this. Considerations that traditional and complementary medicine will be less costly, easier to access and have fewer side effects also affect the choice. In addition, it is thought that the tendency towards traditional and complementary medicine has increased due to the trend towards the natural, the influence of the media, and the support of important institutions such as WHO and various countries. Due to the increase, there is a need to raise awareness of people about traditional and complementary treatment methods and to conduct scientific studies.

Keywords: Alternative medicine, complementary medicine, traditional medicine, modern medicine

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ABSTRACTS BOOK

HEALTH SCIENCES ORAL PRESENTATION

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

IN VITRO BIOLOGICAL ACTIVITY and STRUCTURE-ACTIVITY RELATIONSHIP of JACEIN and JACEIDIN from *CENTAUREA PHRYGIA* SUBSP. *STENOLEPIS* (KERNER) GUGLER

Ali Şen¹

Flavonoids are a group of naturally occurring polyphenolic compounds which possess a wide range of biological activities. In this study, it was aimed to investigate the in vitro free radical scavenging and enzyme inhibitory activities of the major flavonoid jacein and its aglycone, jaceidin, previously isolated from *Centaurea phrygia* subsp. *stenolepis* (Syn. *Centaurea stenolepis*). Also, these molecules will be compared in terms of structure-activity relationship and will be discussed in detail. Antioxidant, anti-inflammatory and antidiabetic effects of Jaceidin and its-7-O-glucoside (Jacein) were carried out by ABTS, 5-lipoxygenase and α -amylase methods, respectively. Jaceidin and jacein exhibited potent antioxidant activity in the ABTS radical-scavenging test with IC_{50} values of 9,91 and 12,54 $\mu\text{g/mL}$, compared to the positive controls, the well-known antioxidants trolox (4,54 $\mu\text{g/mL}$), butylated hydroxyanisole (BHA; 17,06 $\mu\text{g/mL}$), and butylated hydroxytoluene (BHT; 26,82 $\mu\text{g/mL}$). In particular, these compounds showed better antioxidant activity than synthetic antioxidants such as BHA and BHT. Jaceidin and jacein with IC_{50} values of 32,88 and 78,76 $\mu\text{g/mL}$ displayed good inhibitory effect against 5-lipoxygenase enzyme. It is noteworthy that the activity of Jaceidin was comparable to the standard indomethacine (26,59 $\mu\text{g/mL}$). Also, Jaceidin and jacein against alpha-amylase enzyme exhibited significant inhibitory activity with IC_{50} values of 36,07 and 41,60 $\mu\text{g/mL}$ compared to the standard acarbose with a IC_{50} value of acarbose 24,20 $\mu\text{g/mL}$. To the best of our knowledge, this is the first study conducted on ABTS radical scavenging, 5-lipoxygenase inhibitory and α -amylase inhibitory activities of jaceidin and jacein. These results indicate that the two compounds, especially jaceidin, have a significant antioxidant, anti-inflammatory, and antidiabetic activity potential. However, further studies such as in vivo evaluation are required to fully prove the efficacy of these compounds.

Keywords: Flavonoids, Jacein, jaceidin, biological activity, structure-activity relationship

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QUALITY OF FAMILY PLANNING COUNSELING: A EVALUATION FROM TURKIYE

Figen Başkan Birinci¹, Rahime Aydın Er²

Aim: Pre-marriage counseling services are an important opportunity for family planning (FP) education to be given for both genders together and for the male to participate. Good quality FP counseling meets the reproductive health needs of individuals and couples by supporting autonomous decision making. Therefore, assessment and improvement of the quality of FP services could enhance FP services utilization. Survey-based assessments cannot catch nuances of FP counseling. This study aimed to to evaluate the the quality of FP counseling offered to couples in pre-marriage counseling services.

Methods: This qualitative study was conducted in five institutions providing pre-marriage counseling services in Türkiye. Seventeen healthcare professionals who provided family planning training in Kocaeli were interviewed in between October and December 2018. Data were obtained by information form, individual face-to-face interviews, and observation. FP training given by the participants in line with the Marriage Counseling Skills Learning Guide were evaluated.

Results: Of 17 health professionals, all were women, and the duration of giving FP training was 4.5±4.2 years. It was determined that most of the participants kindly welcomed the couple who applied to pre-marriage counseling services and made simple explanations without making medical terms by making face-to-face and eye contact with the couple. However, it was observed that most of the participants did not introduce themselves, did not learn the names, age, and profession of the counselors. While some participants were able to provide information about contraception methods, other participants were not able to explain by showing an example of each method.

Conclusions: The quality of family planning counseling in Turkey is still sub-optimal. Family planning training provided in pre-marriage counseling sessions is not very effective, it has not organized enough time for training and has continued female-dominated family planning counseling.

Keywords: Family planning, reproductive health, quality

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ASSESSMENT OF SCHOOL REFUSAL IN CHILDREN WITH HEARING LOSS

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Aim: School refusal is term that encompasses many subtypes such as truancy, school phobia, and anxiety-induced absenteeism. In the literature, the effect of school refusal in children with developmental disorders such as autism, intellectual disability, attention deficit and hyperactivity disorder has been examined, but school refusal in children with hearing loss has not been examined. This study was conducted to examine risk of school refusal in school-aged children with hearing loss.

Methods: The sample of the study consists of 90 secondary and high school students with hearing loss between ages of 10-18 living in Konya. Research data were collected using preliminary information form including demographic information and the “School Refusal Assessment Scale”. The application of study has been conducted for hearing impaired children secondary and high schools, special education and rehabilitation center.

Results: As a result of the analysis, when the total scores of school refusal were examined, 33 students had no risk of school refusal (Mean=34.27±4.23), 53 students had mild and moderate risk (Mean=50.94±5.68) and 4 students had high risk (Mean=71.25±8.95) was found. A statistically significant difference was found between the total score averages of school refusal according to education level, special education status, special education type, duration of special education and type of amplification used ($p<.05$). There was no statistically a significant difference between the mother's education level, father's education level, parental coexistence status and parental income level, and total school refusal scores ($p>.05$).

Conclusions: The results of the study showed that there is risk of school refusal in children with hearing loss. For this reason, it is recommended to detect the problems experienced in children with hearing loss due to school refusal at an early stage and to make appropriate intervention and management in cooperation with a multidisciplinary team including audiologists.

Keywords: School refusal, hearing loss, cochlear implant, hearing aids, school education

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RATIONAL MEDICATION USE OF PARENTS WITH DISABLED

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Aim: According to the World Health Organization (WHO), the concept of Rational Drug Use (RDU) is defined as “patients' use of drugs suitable for their clinical needs, in doses that meet their personal needs, for an adequate period of time, with the least cost to themselves and to society”. However, it has been reported that more than 50% of the drugs used in the world and in our country are not used rationally by people. The concept of disability is a state of disability that occurs due to different factors in the prenatal, birth and postnatal stages of the person. This research was planned to determine the thoughts of the parents of disabled individuals on rational drug use.

Methods: The study is a face-to-face survey conducted with descriptive and relational scanning method. All individuals participating in the study were informed about the study and their verbal consent was obtained. The research was carried out with the parents of disabled individuals who were treated at Kütahya Private Hope Physical Therapy and Rehabilitation Center between January 24 - March 5, 2020. Rational drug use scale, validity and reliability of which was made by Demirtaş et al., was used in the study.

Results: 161 parents with a mean age of 35±15.04 (Min 18, Max 87) participated in the study. The majority (66%) are women. While 42% of the individuals are in the 30 and below age group, 51.9% of the participants between the ages of 31-60 and 6.1% are 60 and over. When examined by occupational groups, civil servants are in the majority. 82.6% of the participants have a high school or higher education level. “Herbal products can be used as a substitute for medicine.” The answers given to the question show statistically significant differences according to over-the-counter drug use (p=0.014). Some drugs are addictive.” The answers given to the question show statistically significant differences according to the chronic disease status (p=0.009).

Conclusions: We think that the parents of disabled individuals in our country need education and awareness on rational drug use. Being the parents of a fragile group greatly increases the importance of this issue.

Keywords: Rational drug use, disability, being a relative of a patient

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EVALUATION OF A UNIVERSITY HOSPITAL STAFF IN TERMS OF MENTAL DISORDERS WITH SRQ-20

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Aim: Mental disorders are common in society, may become chronic, may result in disability, cause loss of workforce, and cannot be adequately treated because they are often not noticed. For this reason, mental disorders are a public health problem that concerns not only the individual but also society and has a high cost. This study aimed to evaluate the staff of Eskişehir Osmangazi University (ESOGU) Hospital regarding mental disorders.

Methods: This cross-sectional study was conducted on 645 ESOGU Hospital staff between 2021-2022. The Self-Report Scale (SRQ) and the General Health Questionnaire (GHQ) were used to assess the participants' mental disorders. An online questionnaire form was prepared and distributed to hospital staff. Mann Whitney U, Kruskal Wallis, and Spearman correlation analysis were used.

Results: Of the study group, 352 (54.6%) were women, and the mean age was 32.09 ± 8.43 years. The mean score of the SRQ was 7.16 ± 4.97 . Being under 30 years, being women, having bad income, having a history of mental disorder, chronic illness, experiencing significant trauma, and not getting enough social support increase the probability of experiencing a mental disorder. It was determined that there was a strong positive correlation between SRQ and GHQ scores ($p < 0.001$, $r = 0.731$).

Conclusions: The probability of experiencing a mental disorder was low in the study group. Gender, age, economic conditions, family history of mental disorder, chronic illness, life traumas and social supports predicted the possibility of mental disorder. Affecting individuals working in the field of health can lead to disruptions in the entire health system. For this reason, it is necessary to identify vulnerable groups and provide them with social support and to treat these individuals with the most appropriate and effective methods.

KeyWords: Mental disorder, SRQ-20, hospital staff, GHQ

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IN SILICO TOXICITY PROFILES OF SOME NATURAL PROTECTIVE COMPOUNDS AGAINST ANTHRACYCLINE-INDUCED CARDIOTOXICITY

Fuat Karakuş¹

Aim: Anthracyclines, especially doxorubicin, are widely used to treat many types of cancer. However, cardiotoxicity is the severe and dose-limiting adverse effect of anthracyclines. Anthracycline-induced cardiotoxicity (AIC) may be prevented by using natural compounds (NCs). However, it is unclear whether these compounds have an adverse effect. In this study, an *in silico* toxicity analysis was conducted to evaluate the toxicity profiles of NCs used in *in vitro* and *in vivo* cardiotoxicity studies.

Methods: Sixty *in vitro* and *in vivo* studies of drug or chemical-induced cardiotoxicity involving 177 NCs were selected through PubMed, Web of Science, and Google Scholar. The last update was in October 2022. The drug-likeness and ADME properties of 177 NCs were determined by using the SwissADME free web tool. Thereafter, toxicity profiles were evaluated by ADMETlab 2.0, ProTox-II, and pkCSM web servers.

Results: Initially, a total of 17 NCs showed drug-likeness properties and were partially non-toxic. Carnosine, which is found in dietary red meat, was subsequently identified as the only NC without toxicity to the heart or any other organ.

Conclusions: Natural compounds show promise in preventing many toxicities and treating diseases. However, it is very costly and time-consuming to determine the effectiveness of all these compounds, which are hundreds of thousands. For this purpose, it is crucial to use *in silico* methods to determine the lead compounds among thousands of NCs. In the study, the *in silico* findings indicated that carnosine is a potential protective agent against AIC without any toxicity.

Keywords: *In silico* toxicology, admet, anthracycline-induced cardiotoxicity, natural compounds, carnosine

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FUNGUS POISONING FROM THE PERSPECTIVE OF AN ANESTHESIOLOGY SPECIALIST

Muzaffer Senveli¹

Aim: In this study, we aimed to retrospectively examine the patients who referred to Bandırma Training and Research Hospital due to mushroom poisoning and raise awareness on this issue.

Methods: In the study, the medical records of 36 patients whose complaints started after eating mushrooms and were accepted as mushroom intoxication between 01.11.2017 and 01.12.2021 were reviewed. The age, gender, complaints of the patients, the season in which they referred to the hospital, presence of co-morbid diseases, general condition, the way they are brought to the hospital, employed treatment methods, and the results of the treatment were evaluated. Data are shown as mean or n (%).

Results: 24 of the patients were female and 12 were male. The most common complaint was nausea and occurred in 23 (63.88%) cases. Vomiting has occurred in 26 cases (72.22%), diarrhea in 7 cases (19.44%), abdominal pain in 7 cases (19.44%), chills in 1 case (2.77%), shortness of breath in 1 case (2.77%), and fatigue in 1 case (2.77%). The general condition of our cases was found to be good in 29 (80.55%), moderate in 5 (13.88%), and bad in 2 (5.55%). Of the patients, 22 (61.11%) referred to the emergency department in autumn, 8 (22.22%) in winter, 5 (13.88%) in spring, and 1 (2.77%) in summer. Thirty-three (91.66%) of 36 patients were discharged after their treatment, and 2 patients (5.55%) were referred to another health institution due to the overload of the inpatient facility and 1 patient (2.77%) has died. The mode of admission to the hospital is by their own means for 10 patients (27.77%), 112 emergency ambulance for 8 patients (22.22%), and unknown in 18 patients (50.00%). Gastric lavage and activated charcoal were employed to 3 patients. Penicillin was employed to 3 patients and Acetylcysteine to 3 patients. Eighteen patients were given symptomatic treatment. Pregnancy was diagnosed in 1 patient, HT in 5 patients, asthma in 3 patients, CAD in 3 patients, DM in 1 patient, and migraine in 1 patient.

Conclusions: In addition to treating with current treatment methods, it is extremely important to increase the level of education and awareness against mushroom poisoning. Organ donation may reduce deaths due to mushroom poisoning in advanced centers where liver transplants are performed. Increasing the level of awareness about mushroom poisoning, and increasing the number of advanced treatment centers will play a role in reducing the number of deaths due to mushroom poisoning.

Keywords: Fungus, poisoning, treatment

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DETERMINATION OF QUALITY OF LIFE AND MEDICATION ADHERENCE IN PATIENTS WITH ACUTE CORONARY SYNDROME

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Aim: Patients may have poor medication adherence after acute coronary syndromes (ACS). Most patients are treated for long periods of time with a combination of drugs for treatment or prophylaxis. Psychosocial problems, anxiety and depression are common in these patients and can lead to a decrease in quality of life. The aim of our study is to determine the quality of life, and medication adherence in patients with ACS.

Methods: This prospective and descriptive study was conducted at a cardiology clinic in Istanbul between May-October 2022. The patients hospitalized with ACS diagnosis were included in the study. Medication Adherence Report Scale (MARS) and the Turkish version of the Health-related Quality of Life-4 (CDC HRQOL-4) Scale were applied to patients only once.

Results: The median age of the patients was 60 (53-70), the median number of diseases was 2 (0-4) and the median number of drug use was 3 (0-6). It was observed that the quality of life decreased with age ($p<0.05$). The quality of life of most of the female patients (over 70%) was found to be lower than male patients ($p<0.05$). At least one medicine was used in 70% of the patients, and the median score of MARS score was determined as 10 (0-14). It was determined that MARS scores were positively correlated with age and number of comorbid diseases and the number of drugs ($p<0.05$).

Conclusions: In our study, it has been determined that age and female gender may negatively affect the quality of life of the patients. Although the number of comorbid diseases and the number of drugs were low in patients with ACS, it was observed that medication adherence was low. We think that clinical pharmacists can contribute positively to the treatment of patients with ACS through patient education and follow-up.

Keywords: Acute coronary syndrome, quality of life, medication adherence, hospital setting.

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PROTECTION FROM MILK FEVER WITH ANIONIC FEEDING IN THE DRY PERIOD

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Milk Fever is a metabolic disease characterized by paralysis in cows with high milk yield and lactation number greater than 2. High levels of calcium (Ca) are excreted from the body in prenatal colostrum and in the first few days after birth with both colostrum and milk. It occurs with the excretion of Ca from the body with colostrum and milk after birth. There is a serious loss of Ca with colostrum. Milk fever occurs when the calcium excreted from the body with colostrum and milk cannot be met by the absorption of dietary calcium from the intestines, reabsorption from the kidneys and mobilization from the bones. Reasons for not meeting postpartum calcium; malnutrition in the dry period, imbalance of the Ca/P (Phosphorus) ratio in the ration, vitamin D insufficiency, and parathyroid gland deficiencies. It is also stated that hypocalcemia causes diseases such as inability to expel the placenta, ketosis, mastitis and metritis, abomasum displacement. Studies have shown that the ration is more important than the anion-cation balance in the prevention of milk fever. In the last 3 weeks of the dry period, anionic feeding contributes to the prevention and control of hypocalcemia. In the ration, Cl⁻, S⁻ are anionic elements, Na⁺, K⁺ are cationic elements. As a result of anionic feeding, metabolic acidosis occurs in animals. Thanks to anionic feeding, Ca mobilization from bones is better. Calcium chloride, magnesium chloride, ammonium chloride, calcium sulfate and ammonium sulfate are used to reduce the cation-anion balance in the ration to negative. It is stated that the cation-anion balance of the ration should be at the level of -150 -200 mEq/kg DM by making anionic feeding in the dry period and adding anionic salt to the ration for protection from milk fever.

Keywords: Milk fever, anionic salt, calcium

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FACTORS AFFECTING DIGITAL GAME ADDICTION AMONG PRESCHOOL CHILDREN

Yiğit Şenol¹, Fatma Betül Şenol²

Aim: The aim of the study was to examine the factors that affect pre-school children's digital game addictions.

Methods: This cross-sectional study included 128 children aged 60-72 months in pre-school education. Personal Information Form and Digital Game Addiction Tendency Scale were used as data collection tools in the study. Descriptive statistics of the data were presented as frequency, percentage, median, largest and smallest. The fit of continuous data to the normal distribution was evaluated with the Kolmogorov Smirnov test, and did not fit the normal distribution. Mann Whitney U test was used to compare independent groups, and Kruskal Wallis H test was used to compare groups with more than two.

Results: There was no statistically significant difference between the genders of children and their digital game addictions. When children's digital game addictions were compared with their parents' education levels, a statistically significant difference was found in the continuous playing sub-dimension. As the educational status of the parents increased, the time spent by children with digital games in their daily lives decreased. There was a statistically significant difference in children's constant playing and conflict sub-dimensions when compared to having their own smartphone/tablet. Children who had their own smartphone/tablet had increased the amount of time they spent with digital games in their daily lives and their reactive behaviors when they prevented digital games. In addition, as the time spent by children with digital games increased, their addiction to digital games increased and there was a statistically significant difference in the sub-dimensions of conflict, constant playing, reflection on life and the total of the scale.

Conclusions: Parents' education level, the time spent with digital games and children's own tablet/smartphone were effective factor on addiction. Considering these issues, it is thought that control of digital games by educated families will reduce addiction.

Keywords: Children, digital games, addiction

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THE TOP 50 CITED ARTICLES IN THE FIELD OF DEEP LEARNING IN MEDICINE: A BIBLIOMETRIC ANALYSIS

Mehmet Karadağ¹

Aim: Deep learning is a machine learning technique that is many fields such as classification, modeling, image recognition in the medical field in recent years. The objective of this bibliometric study was to evaluate the top 50 cited articles on deep learning in medicine between 2012 and 2022 via multidimensional citation analysis.

Methods: We analyzed the top 50 cited articles among 6.432 on deep learning in medicine articles published between 2012 and 2022; these articles were obtained from the databases in Web of Science on their citation rates per article, publication years, countries of origin, institutions or organizations and the most common medicine field. The data obtained were analyzed with the SPSS version 25 software package program.

Results: In the top 50 cited articles on on deep learning in medicine, the total number of authors was 313 and the average authorship was 6.26 ± 3.06 (range: 2–11). In our study, 25 of the top 50 cited articles were published between in 2018 and 2019 years, and Q index or quartile score of these journals was mostly Q1. The most preferred journal was Nature according to the total number of citations and articles ($n=4874$ and $n=7$, respectively). Besides, the three most common field among the top 50 cited articles were radiology-oncology (10 articles), radiology-neurology (8 articles), and genetic (5 articles). The average number of citations was 387.68 ± 228.71 (range: 217-1289). It was observed that there were 11 articles in pre-clinical fields.

Conclusion: Analysis of the top 50 most cited articles in the field of deep learning in medicine as an update study can provide us scientific contributions and vital current data in clinical implementations.

Keywords: Deep learning in medicine, top cited article, bibliometric analysis

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PSYCHOSOCIAL IMPACT IN STUTTERING AND SUPPORT RECOMMENDATIONS

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Stuttering is a speech fluency disorder. It is known that physiological, psychological, environmental, motor and linguistic factors play a role in the formation and development of stuttering. In this study, the psychosocial dimension of stuttering is tried to be explained and what the support suggestions were tried to be framed.

Stuttering has observable fluency and secondary behaviors, as well as unobservable components such as stress, anxiety, fear, anxiety, frustration, negative attitude towards speech, which can increase the severity of stuttering. The nature of stuttering has the potential to evoke a sense of ridicule, shame, frustration, and/or pity in the listener. For this reason, listeners tend to pay attention to stuttering make sarcastic and judgmental evaluations, and to make suggestions such as "relax, breathe, think and speak again" rather than the content of the speech. Such situations set the stage for the person with stuttering to develop speech anxiety and exhibit behaviors in which they may become more sensitive to the reactions of the audience. Thus, many individuals with stuttering experience various psychosocial stressors related to stuttering that can negatively affect their quality of life and participation in social interactions in family, professional, and school settings. In this context, it is very important for individuals to determine the stress factors related to stuttering, to minimize their anxiety, to have experiences that will change their negative beliefs and attitudes, to be included in support groups of individuals with stuttering, and to reduce their negative attitudes and behaviors against stuttering. Increasing social awareness in this way will contribute to increasing the psychosocial well-being of individuals with stuttering.

Considering the psychosocial dimension of stuttering, which can adversely affect the quality of life and speech fluency of individuals, it is important to increase both individual and social awareness to reduce negative attitudes and behaviors towards stuttering.

Keywords: Speech disorder, stuttering, psychosocial impact

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EVALUATION OF DOCTORAL AND MEDICAL SPECIALIZATION THESES ABOUT AIR POLLUTION/QUALITY IN TÜRKİYE

Ömer Faruk Tekin¹, Çağdaş Sertkaya², Ece Arık³

Aim: The aim of this study is bibliometric evaluation of air quality/pollution in doctoral and medical specialization theses in Türkiye.

Methods: This study is a descriptive and bibliometric study which was made in between 01.08.2022-15.10.2022. Datas were taken from Council of Higher Education Center of Thesis. Doctoral and medical specialization theses with “air quality” and “air pollution” key words were scanned in title level. 87 theses were included which were reached in 15.10.2022. Theses were evaluated according to type (doctoral, medical specialization), year, discipline and measured parameters. Datas were analyzed via Excel and presented as number and percent values.

Results: 64 (73.6%) of 87 theses were doctoral and 23 (26.4%) of them were medical specialization theses. 34 (39.1%) theses with air quality key word and 53 (60.9%) theses with air pollution key word were reached. 60.9% (n=53) of theses were in Engineering Science, 36.8% (n=32) in Medical Science, 1.15% (n=1) in Education and 1.15% (n=1) in Social Science fields. Most found fields were; Enviroment Engineering with 24 (27.6%), Public Health with 18 (%20.7%) and Machine Engineering with 6 (6.9%) theses. 5 theses (5.8%) in between 1985-1992 years, 22 theses (25.3%) in 1993-2002, 17 theses (19.5%) in 2003-2012 and 43 theses (49.4%) in 2013-2022 were found. 9 doctoral theses (Biophysics, Biostatistics, Public Health, Nursery and Medical Biology) and 23 medical specialty theses (Family Medicine, Peditry, Pulmoner Diseases, Public Health and Emergency Medicine) were found about health fields. The parameters used in theses as indicators of air quality/pollution were heat in 22 (25.3%), humidity in 21 (24.1%), PM_{2.5} in 23 (26.4%), PM₁₀ in 36 (41.4%), SO₂ in 40 (46.0%), NO_x in 21 (24.1%), CO₂ in 14 (16.1%), CO in 16 (18.4%) and VOC/TVOC in 8 (9.2%) theses.

Conclusion: Although studies have increased about air quality/pollution in our country recently, there isn't enough study about air pollution which is an important health problem. Recent studies are limited to their fields and we think that multidisciplinary studies must be increased.

Keywords: Air quality, air pollution, thesis

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EFFECTS OF XYLITOL-CONTAINING GUMS ON DENTAL CARIES

Engin Kariper¹

Due to the increase in sugar consumption, clinicians encounter more caries, gingivitis, metabolic syndrome, obesity and diabetes mellitus. This situation leads consumers to healthier sweeteners. The aim of this review is understanding the mechanisms of xylitol-containing gums on dental caries. The most used sweeteners are xylitol, sorbitol, erythritol, maltitol, lactitol, mannitol, and isomalt. Xylitol is an alcoholic compound found naturally in plants and has been observed to be produced by some bacteria and fungi. Xylitol is generally classified as sugar alcohol or polyalcohol. Xylitol can be taken from candies, chewing gums, sweets and syrups, and it has been shown to prevent caries formation when used regularly. It has been suggested that the effect of polyols such as xylitol in preventing caries may depend on the number of OH groups in their molecules. Although the isolation of streptococcus mutans from caries lesion was performed by J. Clarke in 1924, its importance in caries formation was understood in the 1960s. Xylitol sugar has potential to inhibit the growth of streptococcus mutans. Xylitol disrupts the energy production and energy consumption cycle of bacteria, and also has a negative effect on bacterial metabolism, thus killing bacterial cells. It can reduce plaque formation and enamel dentin demineralization. Many public regulatory agencies have permitted the use of xylitol as an anti-caries agent. Xylitol-containing gums and foods decrease the growth of streptococcus mutans so reduce the growth of dental plaque.

Keywords: Xylitol-containing gums, dental caries, remineralization

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DOCKING APPROACH TO UNCOVER PHYTOCHEMICALS FROM *PSIDIMUM GUAJAVA* TO TREAT DIABETES MELLITUS

Mohamed Ifran¹

Diabetes mellitus (DM) is commonly recognized as a complex disease that is on the rise and has epidemic proportions. The drugs utilized today to treat diabetes have several unavoidable adverse effects, and many of them are no longer as effective against the complex condition. The current study aims to use the docking technique to uncover the best antidiabetic phytochemicals found in *Psidium guajava*. Peroxisome proliferator-activated receptor **gamma** (PPAR-gamma) receptor (PDB ID: 3ET0), which is identified as the primary functional receptor for the class of medications known as thiazolidinediones that increase insulin sensitivity, was docked using Autodock vina 1.2.6 through the generation of .BAT file with ligands retrieved from NCBI PubChem with a single run. Redocking of the natural ligand was performed for methodology validation. The results were analyzed for binding affinity and interactive amino acid residues. To visualize the interaction, BIOVIA DS was used. Pharmacokinetic characteristics and drug-likeness were assessed using the SwissADME web server. Out of 15 ligands, the top 5 ligands, guaijaverin, apigenin, galangin, rutin and epicatechin, showed binding affinity, -9.2, -8.9, -8.9, -8.8, and -8.7 kcal/mol, respectively. In SwissADME analysis, guaijaverin, rutin and epicatechin failed to respect Lipinski's rule. The most common hydrogen bond interactions were found with SER464 amino acid residue in the binding pocket. LEU465, TYR473, and VAL450 were identified as the common amino acid residues with respect to hydrophobic interactions. Based on the results, apigenin and galangin have the potential as best drug candidate to treat DM. In-vivo and in-vitro experiments can be followed in future.

Keywords: Apigenin, autodock, guaijaverin, PPAR-gamma

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INVESTIGATION OF THE RELATIONSHIP BETWEEN PHYSICAL ACTIVITY LEVEL AND BALANCE PERFORMANCE IN ELDERLY INDIVIDUALS

Emine Ayça Ödemişlioğlu Aydın¹, Songül Aksoy²

Aim: With aging, anatomical and physiological changes occur and deterioration occurs in the mechanisms that provide the formation of balance. As a result, balance problems occur and falls occur. Fear of falling lead to limitation of activities: this activity restriction causes deterioration in balance and mobility later on. Examining the relationship between balance performances and physical activity levels of elderly individuals is important to increase their participation in daily life and to prevent the risks of falling. In this study, it was aimed to examine the relationship between balance performance and physical activity levels of elderly individuals

Methods: A total of 84 healthy elderly individuals over the age of 60 participated in the study (55 M, 29 F). The mean age of the participants was $67,7 \pm 6,45$. Mini-BESTest was applied to evaluate the balance performances of the participants. Physical Activity Scale for the Elderly was applied to measure the level of physical activity. The relationship between dependent and independent variables of the study was evaluated with Spearman correlation analysis.

Results: A statistically low level of positive and significant correlation was found between the Physical Activity Rating Scale for the Elderly and the Mini-BESTest ($p < 0.05$).

Conclusions: According to the results of the research, it was found that there is a positive and significant relationship between the level of physical activity and balance performance. It was concluded that older individuals with higher physical activity levels had higher balance performances. It has been found that individuals with higher balance performances have higher physical activity levels. It is concluded that physically active individuals have better balance performances and thus minimize the risk of falling. More active and active lifestyles of older individuals will contribute to better balance skills. This will prevent falls.

Keywords: Aging, balance, physical activity, falling

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TREATMENT WITH COMBINATION AMICACIN+MEROPENEM OF CHRONIC CYSTITIS CAUSED BY MULTIPLE ANTIBIOTIC RESISTANT KLEBSIELLA PNEUMONIA IN A CAT

Uğur Aydoğdu¹, Ersoy Baydar², Ziya İlhan³

Aim: In this case, it was aimed to isolate multi-antibiotic resistant K. pneumoniae in a 5-year-old male Domestic Shorthair cat with chronic cystitis and to present the treatment with the combination of amikacin + meropenem.

Methods: The cat was brought to our clinic with symptoms of bloody, painful urination and more frequent urination than usual. Klebsiella pneumoniae was isolated as pure culture as a result of bacteriological cultivation made from midstream urine sample taken with compression applied to the urinary bladder.

Results: In the in vitro antibiogram test, the bacteria; tetracycline, oxytetracycline, streptomycin, enrofloxacin, cloxacillin, clindamycin, ceftiofur, cefoperazone, cephalothin, tobramycin, ampicillin/sulbactam, amoxicillin/clavulanic acid, penicillin/novobiocin, trimethoprim/sulfamethoxazole and neomycin/bacitracin/tetracycline were found to be resistant. Therefore, treatment was started with amikacin, unlike the antibacterials tested. Since the expected clinical improvement was not observed 1 week after the administration, meropenem was also added to the treatment. After approximately 6 weeks of treatment, the animal was clinically fully recovered.

Conclusions: As a result, it was thought that the combination of amikacin + meropenem could be a successful alternative in the treatment of cystitis cases caused by multiple antibiotic resistant K. pneumonia in cats.

Keywords: Amikacin, cat, cystitis, K. pneumoniae, meropenem A

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THE EFFECT OF EARLY MALADAPTIVE SCHEMAS AND CHILDHOOD TRAUMAS SUBSTANCE AND / OR ALCOHOL USE IN WOMEN: A CASE-CONTROL STUDY

Özgü Çınar¹, Işıl Ergin²

Aim: The aim of this study is to determine the effect of schemas and traumas on alcohol or substance use in women.

Method: This study is a case-control study. The case group of this study consisted of 40 women diagnosed with alcohol or substance use disorder in AMATEMs in Bursa. The control group consisted of 80 women with no diagnosis of alcohol or substance use disorder in 1 Nolu AÇSAP Center in Bursa. Socio-demographic information form, BAPİRT Alcohol and Substance Scale, The Young Schema Questionnaire -Short Form-3, Childhood Trauma Questionnaire were used in this study. Chi-Square, Man-Whitney U, Spearmans's Correlation tests and Logistic Regression analysis was used for statistical analysis.

Results: According to the results of binary research showing the effect of socio-demographic characteristics on alcohol or substance use; being married, having children, living with spouses and children reduce the risk of alcohol or substance use in women; high income, smoking and having alcohol or substance use disorder in 1st and 2nd degree relatives increase the risk of alcohol or substance use in women. According to the multiple analyzes results, smoking is 22.6 (CI: 5.58-91.92) fold, family (sister/brother, mother, father) and relatives (cousin) substance use disorder 10.3 (CI: 1.79-59.73) fold increases the risk of alcohol or substance use in women. In this study, having abandonment, emotional inhibition, emotional deprivation, enmeshment, pessimism, vulnerability, social isolation, defectiveness, unrelenting standards, approval seeking, insufficient self-control, and punitiveness schemas and childhood physically, sexually, emotionally abuse and physically, emotionally neglect increases the risk of alcohol or substance use in women.

Conclusion: Schemas and traumas are risk factors of alcohol or substance use in women. Schemas and traumas should be considered on the treatment of women with alcohol or substance use disorders.

Keywords: Alcohol; substance abuse; schema; trauma

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EXAMINING POSTGRADUATE DISSERTATIONS IN TURKEY ABOUT PREMATURE

Aybüke Yurteri Tiryaki¹

Aim: This study aims at examining the postgraduate dissertations in Turkey about premature from the perspectives as; the year of the study, university, institute, department, type of the study, participants' age group, identifying the subject of the study, and suggestions for future studies in this field.

Methods: With this aim the theses and dissertations indexed in Council of Higher Education Thesis Center and university libraries. The study sampling of the research consists of the published 25 master and postgraduate theses on adult education between 2007-2018 in Turkey. The purposive sampling was determined for the sampling of the research. An Evaluation Form was designed for the evaluation of the theses. The findings of the study revealed that since 1980 most of the theses were specialty in medicine thesis.

Result: As a result of the study, it was concluded that the vast majority of the theses on disaster was descriptive type researches, and experimental studies were found to be limited in number. Due to the high mortality rates in premature births in the past years and the primary need to increase the survival rate, it is seen that the studies conducted are aimed at complications and physiological needs.

Conclusions: Along with the decrease in the infant mortality rate, in parallel with the developmental evaluations, the chronic diseases and developmental delays of these infants have been noticed and studies have begun in this area. However, the scarcity of developmental studies and support program applications draws attention.

Keywords: Child development, postgraduate dissertations, premature

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“MUNCHAUSEN SYNDROME BY PROXY” AS A FORM OF CHILD ABUSE: A REVIEW BASED ON THE CASE

Aybüke Yurteri Tiryaki¹ Gülen Baran²

Aim.: Munchausen Syndrome by Proxy is the case where the adult responsible for the child subjects the child to unnecessary physical and psychological medical examination and treatment by fabricating and/or inducing health problem symptoms and indications. The aim of the study is to determine various characteristics related to Munchausen Syndrome by Proxy by evaluating case studies published in Turkey.

Methods: The study sampling of the research consists of the published in academic paper between 2000-2022 in Turkey. The purposive sampling was determined for the sampling of the research. An Evaluation Form was designed for the evaluation of the articles.

Result: The findings of the study revealed that the first study was done in 2000. The cases were evaluated in three dimensions; namely the child, Munchausen Syndrome by Proxy and the family. Each dimension was discussed in regard to designated themes; the frequencies of cases containing information regarding each theme were determined and explained with tables. Research results showed most of the abusers were the victims' mothers, some of these mothers had accompanying psychological health problems and most of the children who were victims of Munchausen Syndrome by Proxy were in the 0-3 age group.

Conclusions: Child neglect and abuse have short-term, long-term and permanent effects on children's developmental areas and may occur in various forms. Munchausen Syndrome by Proxy (Factitious Disorder by Proxy) characterized by Meadow in 1977 is a form of child abuse where the adult responsible for the child subjects the child to unnecessary medical procedures by fabricating signs and symptoms of health problems. This form of abuse and the ensuing medical examinations, treatments and invasive procedures may lead to numerous permanent, sometimes fatal, consequences. This study aimed to identify the factors associated with Munchausen Syndrome by Proxy and the common characteristics of child victims and perpetrators of MSBP, which will be critical to the development of preventive efforts and provide guidance for future studies.

Keywords: Child development, munchausen by proxy, child abuse

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ENDOCROWN APPLICATIONS

Aylin Çilingir¹

This review aims to examine endocrown restorations in detail and evaluate the advantages, applications, and in vivo and in vitro studies. For the clinical success of root canal-treated teeth, a good restoration is as crucial as endodontic treatment. Devital teeth have a higher risk of biomechanical failure compared to vital teeth. Therefore, the ideal restoration of an endodontically treated tooth has been widely debated and controversial. With the development of adhesive systems for treating endodontically treated teeth with excessive material loss, conventional post-core and crown restorations have been replaced by adhesive indirect restorations. Endocrown restorations are a new treatment option used as an alternative to treating these teeth. It is a one-piece restoration with micromechanical retention as cemented adhesively and macromechanical retention, supported by the cavity walls and a pulp chamber. Thus the new approach promotes stability and retention of the indirect restoration without conventional methods, reducing treatment time. It is recommended to restore severely damaged molars that require specific restoration techniques to meet biomechanical criteria. An endocrown consists of a coronal and apical portion covering the pulp chamber space and possibly root canal openings. These applications are relatively simple and require less chairside time. This new treatment modality has advantages compared to conventional methods; it has pleasing aesthetics and lower cost. Preparation is minimally invasive. Calcified and curved canals do not pose a problem during the application; they are applicable even if there is insufficient occlusal distance. Consequently, endocrown restoration has become a promising alternative in the functional and aesthetic rehabilitation of an endodontically treated tooth.

Keywords: Endocrown, endodontically treated tooth, adhesive restoration, extensive coronal destruction.

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CLINICAL APPLICATION OF AUTOLOGOUS FIBROBLAST CELL CULTURE IN ABNORMAL WOUND HEALING

Duygu Harmancı¹

Wound healing is a complex process consisting of fibroblast migration along with the fibrin network and the initiation of re-epithelialization from the wound edges, as well as angiogenesis and neovascularization. Sometimes wounds heal abnormally. This is related to the problem that occurs in one of the wound-healing phases. Sometimes it is persistent inflammation, but sometimes it is the formation of skin fibrosis as a result of excessive collagen deposition during the remodeling process. Fibroproliferative structures, which we can call keloid or hypertrophic scars, cause itching and tenderness in the wound area and cause aesthetic concerns for those affected. In addition, there is no definitive cure. Current approaches are limited to steroid injections into the wound or silicone patches. In recent years, evidence has emerged of the effect of endogenous fibroblasts in remodeling the skin. Dermal tissue taken from the patient and fibroblasts produced in vitro paved the way for treatment by these cells. In this method, called Fibrocell, healthy fibroblasts are produced from a small tissue taken from the patient himself. After these produced fibroblasts are characterized, the treatment process is initiated by injecting the drug or a scaffold into the affected area, in some cases from the outside and in others. In this way, the damaged area is supposed to be healed. Cultured fibroblasts, especially with dermal support, have been shown to contribute to the wound-healing process by reducing wound contraction and promoting collagen synthesis and neovascularization. Since the skin is the largest organ of the body and has a rich structure of fibroblasts, autologous fibroblast culture emerges as a new and open option for the treatment of abnormally developing injuries in skin tissue. As a promising method that eliminates existing difficulties, it can be used not only as a cosmetic tool to eliminate aesthetic concerns but also as a treatment method.

Keywords: in vitro cell cultures; characterization; autologous fibroblast culture; repair

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THE EVALUATION OF BELIEFS TOWARD MENTAL ILLNESS OF STUDENTS OF OCCUPATIONAL THERAPY

Selma Ercan Doğu¹

Aim: People with mental illnesses are among the groups most exposed to stigma. Occupational therapy aims to increase the activity and social participation of disadvantaged individuals among the health professions. Therefore, it is important to determine the attitudes of occupational therapy students towards disadvantaged individuals who are most exposed to stigma. We aimed to assess the beliefs of occupational therapy students about mental illnesses.

Methods: The study included 60 students attending the Department of Occupational Therapy, University of Health Sciences. Inclusion criteria are voluntary to participate, and being between the ages of 18-20. Individuals who were not in the occupational therapy department, and had psychiatric diagnosis-treatment were not included in the study. Sociodemographic data form and Beliefs toward Mental Illness (BMI) scale applied.

Results: 60 participants were comprising 3 males and 57 females with a mean age of 21.20 +4.08 years. 11.7% of the participants had a physical illness and all of them not reported any mental illness. 85% of the participants reported that their family did not have any diagnosed mental illness. Most of the participants took psychology course (94%), 48% of them took the psychosocial course. The mean of the Helplessness and Impairment in Interpersonal Relations subscale was 33.55+ 8.03. The mean of Dangerousness Subscale was 25.46+5.98 and Incurability Subscale was 9.21+0.94. The total score of the BMI was 67.41+13.14.

Conclusions: According to the results, students from department of occupational therapy had negative attitudes towards individuals with mental illness and perceived them as dangerous and incurable. Studies demonstrated that students who were not having any education about mental illness were more likely to stigmatize people with mental illness. Therefore, our study findings suggest that courses including having mental illness and antistigma topics may be added to curricula. However, further research is required with larger sample sizes.

Keywords: Stigma, mental illness, occupational therapy

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EVALUATION OF THESIS IN TURKEY ON "HYPERTENSION" AND "COMPLIANCE"

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Aim: Hypertension is present in approximately one third of adults in developed and developing countries. However it was observed in a study that only 15.8% of the patients were entirely compliant with the prescribed treatment. It is obvious that compliance is a key factor in the care of people with hypertension. The aim of this study is to assess theses written about "hypertension" and "compliance" in Turkey.

Methods: All theses that appeared after a search using the terms "hypertension" and "compliance" covering the years 1986 through 2021 on the website of the Council of Higher Education Thesis Center (YÖKTEZ) were analyzed. Each thesis was examined independently by two scholars.

Results: The distribution of 159 theses included in our study is 8% doctorate, 30% master's degree, and 63% specialization in medicine. Considering the publication rate by years, 37% of the theses were made between 2019-2021, which shows that the interest for this subject has increased recently. It was determined that the studies were carried out in 52 different universities. Health Sciences University Turkey with 19 theses and Istanbul University with 12 theses were determined as the universities that published the most theses related to these keywords.

Conclusion: With this original study, a broad view of the development and change process of theses searched by the keywords "hypertension" and "compliance" in YÖKTEZ is presented. We believe that this study highlights the need for practices to increase patient compliance in hypertension in Turkey and it will be beneficial in terms of leading to stronger studies in the future.

Keywords: Hypertension, compliance, blood pressure, clinical pharmacy

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NUTRITIONAL GENOMIC

Halil Yavuz¹

Nutritional genomics consists of two areas, nutrigenetics and nutrigenomics. Their main purpose is to explain the impact of interactions between genes and diet on the health of individuals. Nutrigenetics examines individual differences at the genetic level that change individual responses to diet, while nutrigenomics studies how nutrients and bioactive food compounds affect gene functions through epigenetic modifications. Nutrigenomics includes epigenetics and nutrigenetics. Epigenetics is a science that deals with chemical changes that occur in genes during life that affect gene expression. Nutrigenetic studies try to determine how interpersonal variability is largely determined by genetic factors in response to diet changes. Recently, there has been a meaningful relationship between SNP (Single nucleotide polymorphism), Diabet Mellitus risk and cardio-metabolic risk factors in genes related to nutrients and metabolism. The main epigenetic mechanisms of gene expression regulation are DNA methylation, histone modifications and small non-coding RNAs. Such modifications play a significant role in the structure and organization of chromatine.

Nowadays, with their diet and lifestyle changing, people can be considered to be more prone to nutrition related diseases and disorders. Recently, nutritionists have focused on identifying the positive and negative effects of the relationship between nutrition and genes on health. With data from the human genome project and new technical developments, we are trying to develop individual diet methods to improve quality of life, ensure healthy aging and prevent disease. However, environmental problems such as age, gender, physiopathological status and personal lifestyle should also be taken into account.

In many studies; it has been reported that SNP analysis can be used to determine the appropriate diets for the individual. SNPs in various genes can change metabolism, affect nutrient interactions. So far, the relationship of about 1000 genes with the disease has been revealed. It's like cancer, lactose intolerance. There is a lot of evidence to support that genetic factors play a key role in the development of cancer. Genetic factors such as DNA and gene structure are influenced by nutrition. Nutrition can also lead to abnormal DNA methylation, which in turn contributes to carcinogenesis.

In this review; It is aimed to present the applied approaches about nutrigenomics, nutrigenetics and nutrition-based dietary recommendations.

Keywords: Nutrigenetic, nutrigenomics, epigenetics, nutrition, gene.

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ABSTRACTS BOOK

MEDICAL SCIENCES ORAL PRESENTATION

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

OUR FOLLOW-UP AND TREATMENT RESULTS IN CONGENITAL NASOLACRIMAL DUCT OBSTRUCTIONS FOLLOWED IN THE TRACIA REGION

Göksü Alaçamlı¹, Dilek Bayram², Yaşar Sait Erda³

Aim: Congenital epiphora describes the tears that occur due to congenital pathologies of the lacrimal drainage system and is seen at rates ranging from 1.75% to 20%. The most common pathology of the drainage system is the persistence of the membrane at the level of Hasner's valve at the end of the nasolacrimal duct. The aim of this study is to present the results we obtained in the cases with congenital epiphora that we followed and treated in our region.

Methods: 195 eyes of 161 patients with pathologies of the lacrimal drainage system grouped according to the anatomic locations who had regular follow up between the years 2000-2010 at the Ophthalmology Department of the Faculty of Medicine Trakya University. The patients with congenital epiphora were assigned into two different groups according to the kind of treatment received as follows: the massaging+medical treatment group (group 1) and the surgical treatment group (group 2). In group 1; 80 eyes of 72 patients and in group 2; 115 eyes of 89 patients were studied. In the group 2, patients with upper level lacrimal drainage system pathologies (punctum, canaliculus) were further grouped as 2a and patients with lower level lacrimal drainage system pathologies (nasolacrimal duct) were grouped as 2b.

Results: In patients in group 2a, different procedures were performed that is punctoplasty +lavage, forced lavage and probing. In patients in group 2b, lavage, forced lavage and probing were performed. The rate of success using massaging was 100%. 60% of punctum anomaly patients and 94% of canaliculus anomaly patients were successfully treated. The rate of success in patients with nasolacrimal duct obstruction was 97.2% - 97.7% .

Conclusion: In conclusion appropriate treatment procedures, starting with the noninvasive ones, should be chosen according to the cause of congenital epiphora.

Keywords: Congenital nasolacrimal duct obstructions, epiphora, punctum, canaliculus, forced lavage, probing

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EFFECT OF LIVER FUNCTION TESTS ON PROGNOSIS IN COVID-19 PATIENTS

Oya Güven¹, Dilek Vural Keleş²

Aim: During the pandemic, it was determined that the COVID-19 infection also caused damage to the other than lung and increased liver function tests. This study investigated the effect of liver damage on the prognosis.

Methods: In this study, between March and December 2020, 136 patients diagnosed with COVID-19 were included. The examinations of the patients at the first application, the last test taken if they received inpatient treatment, or the reviews on the later application to the COVID clinic if they were discharged were noted. The relationship between demographic characteristics, pneumonia severity, comorbidities, liver function test abnormalities and these patients' prognoses was determined.

Results: It was observed that the mean age (63.2 ± 12.96), pneumonia severity ($p < 0.05$), and final Aspartate transaminase value ($p < 0.05$) of the surviving patients were lower than the other group. In addition, this group had no significant difference between the first and last examinations. In the group who non-survivors, the final AST value was significantly higher.

Conclusion: According to the results, Aspartate transaminase value from liver function tests and pneumonia severity may be the main determinants of prognosis.

Keywords: Liver function test, COVID-19, prognosis

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PROGNOSTIC VALUE OF NLR IN PATIENTS WITH LUNG SQUAMOUS CELL CANCER RECEIVING GEMCITABINE MAINTENANCE CHEMOTHERAPY

Eyyüp Çavdar¹

Aim: This study aimed to investigate the prognostic value of NLR (neutrophil-to-lymphocyte ratio), which has been shown to be a prognostic marker in different cancer types in previous studies, for gemcitabine response time in the squamous cell subtype of metastatic lung cancer.

Methods: Demographic and laboratory data of 68 (male/female, 47/21) patients with lung cancer admitted to the medical oncology outpatient clinic were evaluated. All patients had a metastatic stage cancer and all patients received gemcitabine chemotherapy for at least 2 months. Treatment responses were evaluated according to Recist 1.1.

Results: The median age was 62 (34-78) years. 50 (73.5%) patients showed progression response at the end of the study. The most frequent best response found in gemcitabine chemotherapy was partial response (n=24, 35.3%). Median PFS (mPFS) was found at 16 weeks. The ideal cut-off for PFS was found 4.22 (AUC=0.672 p=0.031). mPFS was 18 (CI 95% 15.5-20.4) weeks for low NLR and 16 (CI 95% 13.5-18.4) weeks for high NLR. NLR was not prognostic for PFS (Log rank P=0.123). Cox regression analysis was performed to identify factors associated with survival. In the established model, only ECOG was found to be prognostic (HR=0.39, 95% CI: 0.20-0.79, P=0.008). NLR, age, sex, metastasis status (de novo-recurrent) and sites of metastasis were not found to be prognostic (P>0.05).

Conclusions: It is important to determine prognostic factors in order to improve survival, to guide proper treatment strategies, and to allow an efficient follow-up. In this study, NLR was not found to be predictive for treatment response time in patients receiving gemcitabine maintenance chemotherapy. New predictor analyzes are needed to generalization of the results in further studies.

Keywords: Gemcitabine, lung cancer, squamous cell, prognostic, NLR

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MULTIDISCIPLINARY APPROACH TOWARDS PATIENTS WITH SYNDROME AND ITS IMPORTANCE (AUDITORY FINDINGS IN CHUDLEY-MECULLOUGH SYNDROME)

Elif Tugba Sarac¹, Hüseyin Deniz²

Aim: The aim is to show the importance of multidisciplinary approach to special children.

Methods: A ten month old baby girl, who did not pass the newborn hearing scan, was referred to our clinic for auditory evaluation. Due to her syndromic outer appearance, the baby was referred to child neurology and brain surgery departments.

Results: The patient, who received hydrocephalia diagnosis in the brain surgery department, was put under genetic analysis. As a result of the collaboration of the genetics and child neurology departments, the patient was diagnosed with Chudley-Mecullough Syndrome. In the autoscopic evaluation carried out, bilateral serous otitis media (SOM) was observed. After medical treatment, the patient was applied bilateral ventilation tube (VT) when she was nine months and eighteen days old. After VT, it was planned to carry out auditory-evoked brain stem test (ABR). In the autoscopic examination done prior to the ABR evaluation, it was seen that VT was active and there was no infection. In the radiological imaging, bilateral 7th and 8th cranial nerves and bilateral middle and inner ear structures were found normal. The patient was suggested a hearing aid and follow-ups. She was referred to special education. According to the auditory development results with the hearing aid, the patient will be evaluated in terms of cochlear implant.

Conclusions: In the literature, Auditory Neuropathy Spectrum Disorder (ANSB) has not been indicated in cases with Chudley-Mecullough Syndrome. In our case, it was seen that the patient had ANSB. Therefore, patients with Chudley-Mecullough Syndrome might be a risk factor in terms of ANSB. In patients with Chudley-Mecullough Syndrome, a multidisciplinary approach is the most important factor in reducing the rate of handicap. Reduction of the rate of handicap is effective in terms of more accurate management of economic and moral energy resources of patients, parents and countries. Therefore, a multidisciplinary approach is necessary.

Keywords: Auditory neuropathy spectrum disorder, Chudley-Mecullough syndrome, hearing loss, multidisciplinary approach

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BLOOD UREA NITROGEN TO ALBUMIN RATIO AND 1-YEAR MORTALITY IN ELDERLY PATIENTS WHO UNDERWENT PERCUTANEOUS CORONARY INTERVENTION

Alkame Akgümüş¹

Aim: Percutaneous coronary intervention (PCI) has become the key treatment method for coronary artery disease, which is one of the leading causes of death in the world and its incidence is increasing. Inflammatory process have been shown in previous studies to predict prognosis after PCI. The aim of our study is the effect of blood urea nitrogen-albumin ratio (BAR), a new marker of systemic inflammatory response, on all-cause mortality in elderly patients who underwent PCI.

Methods: Patients over 80 years of age who underwent PCI between June 2019 and June 2021 were included in this retrospective study. Demographic, clinical and laboratory data and mortality data of patients were obtained from hospital records.

Results: 210 patients with a mean age of 85 ± 3.2 were included in the study. In the 1-year follow-up of the patients, mortality was observed in 32 patients. When the clinical and laboratory data of survivors and nonsurvivors were compared, a significant difference was observed between urea (46.4 ± 13.4 vs 53.2 ± 13.8 , $p: 0.014$), Creatinine (1.05 ± 0.31 vs 1.2 ± 0.33 , $p: 0.004$), albumin (4.12 ± 0.32 vs 3.86 ± 0.32 , $p: <0.001$) and left ventricular ejection fractions ($53\% \pm 9.1$ vs $49.2\% \pm 8.5$, $p: 0.03$). Moreover, the BAR was significantly higher in the non-survivor group than that in the survivor group (13.9 ± 4 vs 11.2 ± 3.3 , $p: <0.001$). The area under the curve for the BAR was 0.693 [95% confidence interval (CI) 0.59 – 0.79] on the receiver operating characteristic curve for predicting all-cause mortality within 1 year. Cox regression analysis revealed that the BAR (HR 1.16, 95% CI 1.06-1.28, $p: 0.001$) was associated with all-cause mortality within 1 year.

Conclusions: The BAR is a simple and potentially useful prognostic factor of all-cause mortality in elderly patients who underwent PCI.

Keywords: Percutaneous coronary intervention, blood urea nitrogen- albumin ratio, elderly, coronary artery disease

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EVALUATION OF THE CLINICAL, DEVELOPMENTAL AND GENETIC FINDINGS OF THE CHILD WHO IS THOUGHT TO HAVE A DEVELOPMENTAL DELAY ASSOCIATED WITH THE FOXP1 GENE

Mustafa Doğan¹, Mehmet Akif Büyükcavcı²

Aim: It has been reported in the literature that pathogenic variants in the FOXP1 gene are associated with "Intellectual developmental disorder with language impairment and with or without autistic features (autosomal dominant) (OMIM: 613670)". Common dysmorphic features include broad forehead, downward sloping palpebral fissures, broad-tipped short nose, relative macrocephaly, and prominent digit pads. Some patients also have behavioral problems.

In this study, we planned to present the clinical, genetic and developmental evaluation outcomes of our 6-year-old male patient with significant delay in all developmental areas, seizures, distinctive dysmorphic findings and behavioral problems, and a mutation in the FOXP1 gene, in order to contribute to the literature.

Methods: Routine biochemical, hormonal and metabolic tests were requested. Abdominal USG, cranial MRI and electroencephalogram (EEG) were taken. Karyotype analysis, array-cgh analysis and whole exome sequencing (WES) test were performed. Ages and Stages Questionnaires (ASQ) and Denver II tests were used for developmental assesment.

Results: The patient's biochemical, hormonal, metabolic tests, abdominal USG and cranial MRI reports were normal. It was reported that paroxysmal abnormality was observed in the left hemisphere temporoparietal region as a result of EEG. After the karyotype and array-cgh analysis results were normal in the patient, the WES test was performed. As a result of WES, the c.1189C>T (p.Arg397Ter) variant in the FOXP1 (NM_001244815.2) gene, which may be associated with clinical findings, was detected as heterozygous. As a result of the developmental evaluation with two different tools, significant delay was found in all developmental areas.

Conclusions: This variant has been reported in the literature previously (rs775136381). Analysis of the patient's parents showed that this variant emerged as de nova. With these available data, this variant was classified as a pathogenic variant according to the "American College of Medical Genetics" classification. Neurodevelopmental results and phenotype findings of our patient were consistent with the information given in the literature. We think that our case will contribute to the literature on this rare condition.

Keywords: FOXP1 gene, developmental delay, intellectual disability, speech delay.

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C-REACTIVE PROTEIN TO SERUM ALBUMIN RATIO MAY PREDICT THE DEVELOPMENT OF CONTRAST-INDUCED NEPHROPATHY

Ahmet Balun¹

Aim: Contrast-induced nephropathy (CIN) is one of the common complications after percutaneous coronary interventions due to acute coronary syndrome. CIN prolongs hospitalizations and may cause mortality. Reasons such as old age, presence of diabetes mellitus and impaired basal kidney functions increase the susceptibility to CIN. However, it is unclear exactly which patients will develop CIN. Previous studies have shown that inflammation plays a role in the pathogenesis of CIN. In our study, we aimed to examine the relationship between the development of CIN and the C-reactive protein to serum albumin ratio (CAR) in patients who underwent percutaneous coronary intervention for ST elevation myocardial infarction.

Methods: 193 patients who underwent percutaneous coronary intervention for STEMI between June 2019 and September 2022 were included in the study. The blood values and clinical characteristics of the patients before coronary angiography were obtained from the hospital registry system.

Results: The patients were divided into groups such as patients with CIN (n: 36) and without CIN (n: 157). When the demographic, clinical and laboratory values of the two groups were compared, it was observed that the presence of hypertension (47.2% vs 29.9%, p: 0.039), C-reactive protein (4 ± 2.4 mg/L vs 2.1 ± 1.8 mg/L, p <0.001), initial creatinine (1 ± 0.24 mg/dL vs 0.94 ± 0.23 mg/dL, p: 0.043) and CAR values (0.96 ± 0.58 vs 0.5 ± 0.43 , p <0.001) were significantly higher in the CIN+ group. Multivariate logistic regression analysis showed the impact of CAR on the development of CIN (OR: 5.508, 95% CI: 2.496-12.154, p <0.001)

Conclusions: C-reactive protein to serum albumin ratio significantly predicts the risk of developing contrast-induced nephropathy after percutaneous coronary intervention.

Keywords: Contrast-induced nephropathy C-reactive protein to serum albumin ratio, percutaneous coronary intervention, nephropathy

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HESITATIONS of FAMILY PHYSICIANS IN REPORTING ELDERLY NEGLECT AND ABUSE SITUATIONS TO LEGAL AUTHORITIES

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Aim: It is aimed to investigate the main reservations of Family Physicians (FP) working in Kütahya about reporting elderly neglect and abuse (ENA) cases to the judicial authorities.

Methods: Kütahya is a province with 80 370 elderly population. The research was conducted between August and September 2022. A total of 196 FPs have been reached, working in 70 family health centers in Kütahya. A questionnaire was applied to the volunteers.

Results: Of the 161 FP volunteers, 55.3% were men, their mean age was 39.54±10.84 (25-67) years. The mean working period was 6.98±4.83 (1-17) years. 46.0% (n:74) of FPs had encountered ENA. It was reported that 40% (n:30) of these cases were subjected to psychological violence, 24.3% (n:18) to physical and psychological violence, and 21.6% (n:16) to only physical violence. Only 23.0% (n:17) of FPs stated that they made a relevant report, 87.0% (n:57) did not report or did not remember. FPs stated that they did not report mostly because they feared that counter lawsuits would be filed (39.1%; n:63) if the neglect and abuse could not be proven. Secondly, they stated that they were afraid that the victim would deny this situation after the incident was submitted to the judicial processes and therefore did not report it (27.3%, n:44).

Conclusions: In our country, expert and multidisciplinary guides should be prepared on the diagnosis, reporting and management of these cases. Protective laws need to be enacted to remove APs' reservations about ENA.

Keywords: Family Physician, elderly, neglect, abuse, notification.

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THERE IS NO DIFFERENCE BETWEEN IN SOME PEDIATRIC COMPLAINTS HOSPITAL ADMISSION ON PANDEMIC LOCKDOWN

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Aim Health and disease problems in children showed a great decrease during the COVID 19 pandemic, especially related to human-to-human diseases. We aimed to analyze the impact of COVID-19 lockdowns on pediatric admissions in a Pediatric Hospital at Turkey.

Methods This retrospective study was conducted by analyzing the numbers and records, including diagnoses, of patients admitted to our pediatric department between March 11, 2020 (the day of the first confirmed COVID-19 case in Turkey) to June 11, 2020, and comparing it with the diagnoses and numbers for the same period in 2019. The most common reasons for admissions were investigated.

Results Totally, 89,607 patients were included. Patient visits reduced drastically by 63.11% to 36.89% during the lockdown period compared to the preceding year. In addition to the impact of COVID-19 lockdowns on the total volume of patients, we observed significant variations in the distribution of diagnoses among children. The percentage of Otorhinolaryngologic diseases ($p = 0,7$), nutrition and metabolism disorders ($p = .1$), child psychiatric disorders ($p = .4$), surgical diseases ($p = .08$), general sign and symptoms ($p = 1$), genetic disorders ($p = 1$) compared to before and after lockdown. In contrast, the relative percentage of neonatal, urogenital, neurological, cardiovascular, hematological, and dermatological diseases significantly increased ($p < .001$) among emergency department admissions.

Conclusion At a constant level COVID-19 strongly affected healthcare utilization. However according to the distribution of the diseases, only neonatal problems and general signs and symptoms increased ($p < .01$). The arrival of the educated public knowledge to the hospital continues as a reality for real emergencies and health professionals who need support for which they remain unresolved. The public must be educated about the safety of hospital environments, and families should be encouraged to visit hospitals in case of emergencies. Additionally, changes in public health advice may help alter healthcare consumption patterns.

Keywords: COVID-19; children; public health; healthcare utilization; Turkey

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QUALITY OF LIFE AND ITS DETERMINANTS AMONG STUDENTS IN A FACULTY OF MEDICINE

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Aim: The aim of this study is to determine the quality of life in medical students and to evaluate its relationship with some factors.

Methods: This study is a cross-sectional study conducted between September and October 2022. The universe of the study consists of 868 students studying at Kütahya Health Sciences University Faculty of Medicine. Since it was aimed to reach the entire universe, no sample calculation was made. The study was completed with 745 people who agreed to participate in the study. The data of the research was obtained through Google forms. The first part of the questionnaire includes sociodemographic characteristics, and the second part includes the Quality of Life Test Short Form-36 (SF-36). SF-36 is a self-assessment scale consisting of 36 items and 8 sub-dimensions (physical functioning, role limitations due to physical problems, role limitations due to emotional problems, vitality, general mental health, social functioning, bodily pain, general health perceptions). Statistical analyzes were done with SPSS 25.0 package program. Mann Whitney U test and Kruskal Wallis test were used for comparisons between groups. For statistical significance, $p < 0.05$ level was accepted as significant.

Results: Of the 745 participants, 54.4% ($n=383$) were male and 45.6% ($n=362$) female. Of the students, 421 (56.5%) were preclinical (1-2-3. class), 324 (43.5%) were clinical (4-5-6. class) students. SF-36 sub-dimension mean score physical functioning 86.9 ± 20.2 ; role limitations due to physical problems 73.0 ± 37.2 ; role limitations due to emotional problems 54.4 ± 44.3 ; vitality 48.2 ± 19.4 ; general mental health 53.4 ± 18.8 ; social functioning 68.4 ± 22.7 ; bodily pain 72.1 ± 20.3 ; general health perceptions was 58.7 ± 18.1 . While the physical function sub-dimension score of the students in the preclinical period was lower than the students in the clinical period ($p=0.046$), the energy (vitality) sub-dimension score was higher ($p=0.032$).

Conclusion: It was observed that the mean scores of the students of the Faculty of Medicine in all sub-dimensions of the quality of life, except for the physical function sub-dimension, were lower than the norm values of the Turkish society. Based on the results of this study, specific needs to improve the quality of life of medical school students will be determined and improvements can be planned.

Keywords: Medical student, quality of life, short form-36

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RELATIONSHIP OF DIABETES AGE AND MICROVASCULAR COMPLICATIONS

Ekmel Burak Özşenel¹

Aim: Diabetes effects millions of people all over the world. In addition to glucose regulation problems, complications of diabetes makes it difficult for patients to cope with. Microvascular complications increase with advancing diabetes age. In this study we try to evaluate relationship of diabetes age and microvascular complications

Methods: For this study we evaluated patient records from our diabetes outpatient clinic. Only type 2 diabetic patients whose retinopathy, nephropathy and neuropathy complications documented included in the study. Age, sex and diabetes age of the patients recorded. NCSS (Number Cruncher Statistical System) 2007 (Kaysville, Utah, USA) program was used for statistical analysis.

Results: A total number of 58 patients included in the study. 39 patients was female (67,2%) 19 was male (32,8%). Distribution of Descriptive Features can be seen in table 1. Diabetes ages of patients with nephropathy were statistically higher than diabetes ages of patients without nephropathy ($p=0.009$; $p<0.01$). Also, diabetes ages of patients with retinopathy were statistically higher than diabetes ages of patients without retinopathy ($p=0.024$; $p<0.05$). However, we could not find a significant result between neuropathy and diabetes age.

Conclusion: It is clearly known that complications increase with advancing diabetes age in diabetic patients. In our study, we tried to reveal this relationship by evaluating microvascular complications. We found a significant increase in the presence of nephropathy and retinopathy with increasing diabetes age in line with the literature. As a result, patients with advanced diabetes age should be followed meticulously, especially in terms of microvascular complications. Appropriate treatment approaches should be provided before organ damage occurs at an early stage.

Keywords: Diabetes, diabetes age, microvascular complications.

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IMPORTANCE OF PAST MEDICAL IMAGING EXAMINATIONS FROM THE PERSPECTIVE OF FORENSIC REPORTS; OUR CASES WITH CHANGING REPORTS

Ufuk Akın¹

Aim: Bone fractures and their evaluation have an important place in clinical forensic medicine practices. In our study, it is aimed to emphasize the importance of confirming the radiological findings described after trauma during the forensic report preparation process by the doctor who prepared the forensic report, and comparing them with previous examinations.

Methods: Among the cases who applied to the Forensic Medicine Clinic between 01/06/2022 and 31/10/2022, we examined 11 cases that were evaluated differently from the first reports as a result of considering the medical records.

Results: In the evaluations of our seven cases, the imaging examinations performed before the related events were obtained. These were examined in comparison with current images and it was determined that the fractures diagnosed in the first post-event examination did not occur as a result of the relevant event. Forensic reports were concluded differently from the first reports. In three of our cases, old-dated imaging examinations were examined and it was found that bone fractures that could not be diagnosed in their first report as a result of related events. In one of our cases, a displaced fracture in the bilateral nasal wing was diagnosed after the event, and it was concluded that this finding was osteotomy due to plastic surgery.

Conclusions: One of the most important problems in the preparation of a forensic report is the establishment of a causal link between the alleged injury and the trauma in question. When a person's medical history is questioned, the person may not be honest about their health status. We believe that it is important that all physicians who issue forensic reports evaluate the examinations from a medicolegal perspective, not just the radiology reports, and also make a comparative analysis with previous imaging examinations. Thus, we think that possible mistakes in the fair trial process can be prevented.

Keywords: Forensic medicine, forensic report, medical imaging, medical records.

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RETROSPECTIVE EVALUATION OF HEPATITIS A AND HEPATITIS C VİRUS SEROLOGY IN PATIENTS INFECTED WITH HEPATITIS B VİRUS

Hülya Yılmaz Baser¹, Türkan Tuzun²

Aim: Viral hepatitis is one of the most important risk factors threatening liver health in our country. Hepatitis B Virus infection is asymptomatic with a frequency of 90% in childhood and symptomatic with a frequency of 20-30% in adults. The hepatitis A virus infection has a more severe clinical course and a higher mortality rate in patients with chronic hepatitis B than in healthy individuals. Since hepatitis C has similar transmission routes to hepatitis B, its incidence is high. In this study, it was aimed to retrospectively investigate the hepatitis A and C seroprevalence of patients followed up with the diagnosis of Chronic Hepatitis B and to identify susceptible individuals.

Methods: The age, gender, hepatitis A and C positivity results of patients with chronic hepatitis B who applied to the infectious diseases outpatient clinic of Pamukkale University hospital between March 2021 and September 2022 were evaluated retrospectively using the hospital information management system. Hepatitis A was evaluated with HAV-IgG and hepatitis C with Anti-HCV.

Results: 189 patients followed up with the diagnosis of chronic hepatitis B were evaluated. The mean age of the patients was 50.80±12.67 years. 54% (n=102) of the patients were male and 46% (n=87) were female. Twenty-one (11.1%) of 189 patients were tested for hepatitis A and 41 (21.7%) for hepatitis C. Hepatitis A positivity was found in 66.6% of those tested, and Hepatitis C positivity was found in 2.4%.

Conclusions: In patients with chronic hepatitis B virus infection, hepatitis A and hepatitis C should be screened for coinfections. The necessity of screening for hepatitis A serology in patients with chronic hepatitis B virus infection and vaccination of seronegative patients has been tried to be emphasized once again.

Keywords: Chronic hepatitis B, Hepatitis A, Hepatitis C

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HEMOPTYSIS IN PATIENTS WITH LUNG CANCER

Kaan Kara¹

Aim: Hemoptysis is seen as the first symptom or during follow-up in 20% of lung cancer patients, and 3% of patients die due to massive hemoptysis. While the amount of bleeding is directly related to the mortality of the disease, 500 ml bleeding can cause asphyxia without causing hypovolemic shock. For this reason, cases of hemoptysis should be evaluated quickly and referred to a reference center where appropriate treatment can be obtained.

Methods: Patients with lung cancer diagnosed in our hospital between 2017 and 2020 were included in our study, and the data were obtained retrospectively from the electronic patient screening system. Of the approximately 10,000 lung cancer patients, 380 lung cancer patients with symptoms of hemoptysis and whose data could be accessed were included.

Results: 89% of the patients were male, mean age was 61 years. 65% of the patients had a smoking history. While mild bleeding in the nursery style was present in 50%, massive bleeding was detected in 4.7%. It was determined that 20.8% of the patients died in this process due to any reason. In the patient group, it was determined that an average of 4 hospitalizations were made and they received an average of 8 days of inpatient treatment. It was observed that fiberoptic bronchoscopy (80%) was preferred most frequently in diagnosis and treatment, while rigid bronchoscopy was preferred in 33% and bronchial artery embolization was preferred in 38% of patients.

Conclusions: Although hemoptysis is common in lung cancer patients, it can present with a clinical manifestation ranging from mild symptoms to life-threatening. Patients with lung cancer presenting with the complaint of moderate and massive hemoptysis should be evaluated quickly and referral to a reference center as soon as possible is important to reduce mortality rates.

Keywords: Lung cancer, hemoptysis, bronchoscopy, mortality

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THE RELATIONSHIP BETWEEN LYMPHOVASCULAR INVASION AND CLINICOPATHOLOGICAL FEATURES IN PATIENTS WITH LUMINAL-A AND LUMINAL-B BREAST CANCER RECEIVING NEOADJUVAN CHEMOTHERAPY

Kubilay Karaboyun¹

Aim: LVI (lymphovascular invasion) in patients who underwent surgery after neoadjuvant chemotherapy in breast cancer is an important independent prognostic factor (1,2,3). In this study, we investigated the relationship between clinicopathological features and lymphovascular invasion in breast cancer patients who received neoadjuvant chemotherapy.

Methods: Medical records of 126 patients were reviewed retrospectively. SPSS statistical program (SPSS 26.0, SPSS Inc. Chicago, Illinois) was used to analyze the statistical data.

Results: The median age of the patients was 50 years (range: 28-79 years). In terms of histological subtype, the majority of patients had the subtype of invasive ductal carcinoma (83.3%). The number of patients with Luminal A was 31 (24.6%), and the number of patients with Luminal B was 95 (75.4%). The rates of premenopausal and postmenopausal patients were similar (46%, 54%, respectively). Most patients were treated with a standard neoadjuvant chemotherapy regimen in combination with anthracyclines and taxane. The number of patients without LVI in their surgical materials was 67 (53.1%), while those with LVI were 59 (46.9%). There was a significant correlation between luminal subtype ($p=0.002$) and LVI (Table 1). In the multivariate analysis, Luminal Type and histological tumor type (invasive ductal, others) were found to be effective factors on LVI. Accordingly, those with luminal B and those with invasive ductal type had less LVI (OR: 0.24 95% CI 0.09-0.64 $p=0.004$; OR: 0.29 95%CI 0.09-93, $p=0.039$) (Table 2). Other clinicopathological features were not correlated with LVI (Table 1).

Conclusions: Luminal A subgroup and invasive ductal histological type are significant risk factors for the presence of lymphovascular invasion in breast cancer patients receiving neoadjuvant chemotherapy. Further studies with larger study populations are needed to increase the generalizability of these findings.

Keywords: Breast cancer, lymphovascular invasion, neoadjuvant chemotherapy, luminal a, luminal b, risk factors

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EVALUATION OF FALLING RISK AND QUALITY OF LIFE IN THE ELDERLY

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Aim: The aim of this study is to evaluate the relationship between quality of life and risk of falling in the elderly.

Methods: This study is a cross-sectional study conducted between 25.08.2022 and 25.10.2022. 38817 people over the age of 65 in the Central district of Kütahya constitute the population of the study. The sample size was calculated as 381 people, with 95% confidence level, 50% prevalence for unknown situations, and 5% margin of error. The questionnaire was conducted face-to-face in family health centers after obtaining the written or verbal consent of the participant with the informed consent form. In this study, a questionnaire including sociodemographic characteristics, features related to falls, falls risk for the older in the community (FROP-Com) screening scale and EQ-5D quality of life scale, prepared by the researchers using the literature, was used. The data were evaluated with the Jamovi 2.2.5 statistical program. Pearson Chi-square test, Mann-whitney U test, Kruskal Wallis H and Spearman correlation test were used for comparisons between groups. Statistical significance level was accepted as $p < 0.05$.

Results: The study was completed with 413 people, 51.6% ($n=213$) female and 48.4% ($n=200$) male. 72.4% ($n=299$) of the participants were 65-74 years old, 23.7% ($n=98$) were 75-84 years old, and 3.9% ($n=16$) were 85 years old and over. The prevalence of falls in the last year of the study group was 21.1% ($n=87$). It was determined that the quality of life was lower in those with a history of falling within the last year and those with a high risk of falling FROP-Com ($p < 0.001$).

Conclusion: In the Central district of Kütahya, one out of every five people over the age of 65 had a history of falling within the last year. A negative correlation was found between quality of life and risk of falling. Although many risk factors are associated with falling, it is extremely important to identify the high-risk group in terms of possible prevention and protection measures.

Keywords: Elderly, EQ-5D, falling, FROP-Com, quality of life

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SEASONAL MEASUREMENT RESULTS OF AFLATOXIN M1 IN RAW MILK OF EDİRNE REGION

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Aim: Aflatoxins are produced by the molds *Aspergillus flavus* and *Aspergillus parasiticus*. Aflatoxins are transformed into aflatoxin M1 (AFM1) and aflatoxin M2 (AFM2) by being metabolized in the digestive systems of animals consuming feeds contaminated with aflatoxin B1 and B2 and pass into milk. The most abundant mycotoxin in milk is AFM1. The International Organization for Research on Cancer has classified AFB1 as 'human carcinogens with sufficient evidence (class 1A)' and AFM1 as 'probable human carcinogens (class 2B)'. Studies show that the level of AFM1 detected in milk and dairy products vary according to the geographical location of the countries. This study, it was aimed to show the possible risks associated with AFM1 for this region by measuring AFM1 levels in raw milk in the Edirne region in four seasons.

Methods: Aflatoxin M1 was studied by HPLC-MSMS method. The European Union has set the limit of aflatoxin M1 for milk at 0.05 µg/l. A total of 45 samples were included in the study.

Result: In 17 of 42 samples in the spring; In 16 of 30 samples in summer; in 18 of 43 samples in the fall AFM1 was detected; none exceeded the limit. In winter, 27 out of 45 samples were found to be positive for AFM1. In 3 samples, values above the limit were detected.

Conclusion: High AFM1 detection is significant in the milk of animals fed with aflatoxin-contaminated food in winter. Our data were found to be quite low when compared to studies in Turkey and the world. Our findings are the first literature data on the Edirne region, Edirne region can be accepted as a safe region in terms of health problems related to milk aflatoxin.

Keywords: AFM1, milk, Edirne, cancer

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PEDIATRIC PATIENTS WITH EBV INFECTION: 3 YEARS OF EXPERIENCE

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Aim: Epstein-Barr virus (EBV) infections are common in the world. EBV is usually asymptomatic in children, but clinical findings become more evident as age progresses. Infectious mononucleosis (EMN) is an acute infection caused by EBV. The expected clinical findings are fever, malaise, sore throat and lymphadenopathy. In this study, we examined the demographic, clinical and laboratory characteristics of inpatient and outpatient pediatric patients who were examined for EBV infection.

Materials and Methods: The study was carried out retrospectively, cross-sectionally, between January 1, 2020 and September 30, 2022. The test results of 552 patients who had VCA IgM EBV test in Pediatric Clinics were evaluated and 38 patients who were found positive were included in the study. Age, gender, clinical findings and laboratory results of the patients were analyzed from the patient information system. Data analysis (minimum, maximum, mean, median, standard deviation) was calculated in SPSS 22.0 program on a personal computer.

Results: EBV VCA IgM test was found to be positive in 38 (6.88%) of 552 cases. Of these patients, 15 (539.47) were treated as an inpatient, while 23 (60.53%) were followed up as an outpatient. Of the cases, 26 (68.42%) were male and 12 (31.58%) were female. The mean age was 5.97 (± 3.81) years. The most common reasons for admission of hospitalized cases were prolonged fever (11 cases), rash (3 cases), lymphadenopathy and liver dysfunction in 2 cases, respectively. The mean age of the inpatients was 6.8 \pm 4.6 years, and the mean hospitalization day was 6 \pm 3.6 days. The reasons for admission of outpatients were prolonged fever (10 cases), lymphadenopathy (9 cases), hepatosplenomegaly (2 cases), respectively. The mean age was 5,6 \pm 3,4 years. While the mean CRP leukocyte values of the outpatients were 6,87 \pm 4,66 mg/l and 10,09 \pm 3,77 10³/mm³, respectively, the mean CRP and leukocyte values of the inpatients were 29,9 mg/l and 8,98 \pm 2,71 10³/mm³.

Conclusion: EMN is a common infection in children. EBV infection should be considered, especially in patients with prolonged fever and signs of lymphadenopathy.

Keywords: Fever, lymphadenopathy, EBV, pediatric

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EVALUATION OF LEFLUNOMIDE TREATMENT IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS: A SINGLE CENTER EXPERIENCE

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Aims: Juvenile idiopathic arthritis (JIA) is the most common chronic rheumatic disease of childhood. Methotrexate (MTX), leflunomide (LFN), and sulfasalazine are the most important treatments in JIA. This study aimed to present our experience with LFN treatment in JIA patients.

Methods: Patients followed in the pediatric rheumatology clinic of our hospital between January 2017-2022 were included in the study.

Results: A total of 18 patients were included in the study. Fifteen of the patients were girls. Eight patients were diagnosed with oligoarticular JIA, seven patients with polyarticular JIA, 2 patients with systemic JIA, 1 patient with enthesitis-associated arthritis (ERA). While 17 of the patients were given MTX and NSAID as initial therapy, only one patient with the diagnosis of ERA received sulfasalazine. Methotrexate was discontinued and LFN treatment was started in all patients who initially received MTX due to gastrointestinal (GIS) intolerance. Six of 7 patients with low disease activity, who had GIS intolerance with MTX, achieved a complete remission with LFN therapy. Four patients who achieved complete remission with MTX. These patients, who had previously suffered from GIS intolerance while taking MTX, were given LFN therapy as they had low disease activity. Complete remission was achieved with LFN in 3 patients. Complete remission could not be achieved with MTX and biologic agents in 6 patients with moderate to high disease activity and GIS intolerance. MTX was discontinued and LFN therapy was started instead. Complete remission was achieved with LFN treatment in only one patient. The patient with ERA was switched to LFN treatment due to inadequate response to sulfasalazine treatment. This patient has been followed for two years without medication and is in remission.

Conclusions: LFN therapy may be beneficial in patients with low disease activity and/ or remission with other DMARDs and relapse after drug discontinuation.

KeyWords: juvenile idiopathic arthritis, leflunomide, treatment.

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BETWEEN 01.11.2021 AND 24.10.2022 IN AEGEAN REGION

PARTICULATE MATTER POLLUTION

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Aim: In this study; It was aimed to compare the PM10 values obtained from the air quality monitoring stations in eight provincial centers (Afyon, Aydın, Denizli, Manisa, İzmir, Kütahya, Muğla, Uşak) in the Aegean Region.

Methods: The study is a descriptive research. The data were obtained from havaizleme.gov.tr. Daily average PM10 measurements of Aegean Region central province stations between 01.11.2021 and 24.10.2022 were evaluated. During this period, it was determined that 364 days in Afyon, 347 days in Aydın, 348 days in Denizli, 355 days in İzmir, 298 days in Kütahya, 325 days in Muğla, 360 days in Uşak and 327 days in Manisa. PM10 limit values; According to the Air Quality Assessment and Management Regulation (HKDYY), 50µg/m³ per day was accepted as 20µg/m³ per year.

Results: The highest average of PM10 measured throughout the year was found in Aydın (67.87±37.54), and the lowest average in İzmir (25.74±11.96) (p<0.001). The PM10 average of all provinces was determined above the annual PM10 limit value determined according to HKDYY. 63.7% of the year in Aydın, 47.7% in Denizli, 37.7% in Kütahya, 29.2% in Uşak, 24.9% in Muğla, It was determined that 21.7% in Afyon, 6.7% in Manisa, 4.8% in İzmir were above the daily limit value according to HKDYY. When PM10 values are evaluated according to the seasons, the provinces with the highest average in spring are Muğla (51.95±29.23); provinces in autumn are Afyon (44.77±29.95), Aydın (92.51±50.25), Denizli (62.16±24.58), Kütahya (65.47±30.49), Manisa (38.20±15.51); The provinces where it is in the winter months were determined as İzmir (28.62±15.60) and Uşak (53.19±25.25).

Conclusions: In our study, it was observed that PM10 air pollution still continues to be a problem in all provinces. It was determined that the Aegean province, Aydın, where PM10 pollution is most common, is İzmir, where it is least common.

Keywords: Aegean Region, PM10, air quality

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CLINICAL NEUROPSYCHOLOGICAL AND RADIOLOGICAL EVALUATION OF ANOSOGNOSIA AND HEMINEGLECT IN ACUTE RIGHT HEMISPHERE LESIONS

Emre Aydın¹, Faik Budak²

Aim: The problem of matter and mind is one of the most interesting topics in neurological sciences and philosophy. Anosognosia and neglect syndrome can provide important clues in solving this issue. In our study, anosognosia and neglect syndrome in patients with acute right cerebral lesion were examined by clinical, radiological and neuropsychological methods.

Methods: Normalized values of star cancellation test, line cancellation test, line cutting test, clock drawing test, figure copying test and reading tests were determined in 60 healthy volunteers and then they were applied to the patients. Presence of anosognosia was determined by Bisiach scale and Berti internal anosognosia battery.

Results: 104 patients included in the study, 92 completed the star cancellation test, 94 completed the figure copying test, 76 completed the clock drawing test, and 74 completed the reading test. As a result of these tests, neglect syndrome was detected in 32 (30.2%) of 104 patients. As a result of tests evaluating extinction, both visual and tactile extinction were detected in 12 patients. According to the Bisiach scale, 14 patients who were considered anosognosia, 12 had additional neglect. In 2 patients, anosognosia without negligence was detected. According to the Berti scale, 12 patients were accepted as anosognosia. Radiological imaging of 40 patients were obtained by CT, 64 of them by MRI. The lesions observed here were classified according to the Damasio Lesion Atlas. In neglected patients, it was mostly detected in the inferior and superior parietal area and prefrotal area. Unlike neglect, insular region lesions were detected more frequently in patients with anosognosia.

Conclusion: It was concluded that anosognosia and neglect syndrome is a multidimensional disease and clinical, neuropsychological and radiological evaluations are important in its diagnosis.

Keywords: Right hemisphere lesion, hemispatial neglect, anosognosia

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OUR SHORT-TERM RESULTS IN PATIENTS WITH DEEP VENOUS THROMBOSIS WHO UNDERWENT ENDOVASCULAR INTERVENTION

Duygu Durmaz¹

Aim: Deep venous thrombosis (DVT) has a hospital mortality rate of %12. The most important life-threatening complications during the short-term period are pulmonary embolism and secondary cardiopulmonary collapse. The main purpose of therapy is to prevent these complications and decrease mortality via early diagnosis and treatment.

In this study, we aimed to present short-term results of pharmacomechanic thrombectomy procedures in patients with acute iliofemoral deep venous thrombosis.

Methods: In this study we evaluated retrospectively ten patients (7 men, 3 women; mean age 60.9 yrs., range 39-76 yrs.) who were diagnosed with acute deep venous thrombosis and underwent endovascular intervention. The procedure was performed via mechanical thrombectomy and tPA (tissue plasminogen activator) administration.

A temporary vena cava filter was inserted in all of the patients to prevent pulmonary emboli complications. After the procedure, warfarine was administered in all patients and the patients were discharged with an INR between 2-3.

Results: Leading Symptoms -pain, edema and stiffness in the legs-. significantly improved within 24 hours after endovascular intervention. No major complications and mortality were observed. Control doppler ultrasonography was performed at 1,3 and 6 months after discharge. At the end of the 6th month, the patency rate was %90.

Conclusion: Medical approach in DVT includes compression and anticoagulant usage. However, anticoagulants do not have a thrombolytic effect. In pharmacomechanical thrombectomy performed in acute deep venous thrombosis, early discharge can be achieved with almost complete destruction of the thrombus and as a result rapid improvement in symptoms. In case of performing within the first 14 days after beginning of symptoms, endovascular intervention is the most safe and effective tool in DVT treatment.

Keywords: Deep vein thrombosis (DVT), pharmacomechanical thrombectomy, thrombolytic

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FREQUENCY OF EMERGENCY ADMISSION IN PATIENTS WITH GALLSTONES WHO WERE NOT OPERATED ON: A RETROSPECTIVE ANALYSIS OF 156 PATIENTS

Mehmet Sait Ozsoy¹, Hakan Baysal², Fatih Buyuker³

Aim: Gallstones and stone-related pathologies have an important place in general surgery emergencies. Gallstones can be asymptomatic or cause a variety of immediate clinical manifestations. In this study, we aimed to investigate the frequency of emergency admission in patients with gallstones who have previously been found to have stones but have not been operated on.

Methods: In this study, 156 patients who applied to the emergency department of Istanbul Medeniyet University Göztepe Prof Dr Süleyman Yalçın City Hospital between 01.01.2018 and 31.12.2019 and were diagnosed with acute cholecystitis with laboratory and radiological findings were retrospectively analyzed.

Results: Seventy (44.8%) of our patients were female, 86 (55.2%) were male, and the mean age of our patients was 56.75 (25-94). Of the patients diagnosed with acute cholecystitis, 84 (53.8%) had a history of gallstones, 72 patients (46.2%) presented with the complaint of gallstones for the first time. 66 patients (42.3%) had a family history.

Conclusions: Gallstones may progress asymptotically or lead to serious clinical pathologies. Acute cholecystitis is one of these clinical pictures. Cholecystectomy should not be delayed in patients with symptomatic gallstones in order to prevent recurrent gallstone attacks and stone-related morbidity/mortality when the stones are symptomatic or complicated in these patients.

Keywords: Gallstone, Acute cholecystitis, Cholecystectomy

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THE EFFECT OF THE COVID-19 PANDEMIC ON THE DIAGNOSIS OF ALLERGIC DISEASES

Bilkay Serez Kaya¹, Celal Karlıkaya²

Aim: It has been shown that during the COVID-19 pandemic period, many problems arise due to the inability of patients to access the health system, especially cancer and tuberculosis. Allergic diseases are also one of the main public health problems. The frequency of application of allergy skin tests may indicate the interaction of these patient groups with the health system. In this study, we aimed to determine the effect of the Covid-19 pandemic period on applications for skin prick testing and indirectly to examine the diagnostic effect of the pandemic period on allergic diseases.

Methods: Trakya University Faculty of Medicine Chest Diseases Skin Prick Test Laboratory is the reference laboratory of the Thrace region, especially Edirne. The data of adult patients admitted between January 2018 and September 2022 and for whom skin prick test was indicated by the physician due to allergic complaints were evaluated with retrospective descriptive statistical methods.

Results: Of 781 cases, 545 were female, 236 were male, mean age was 38 years. There was no difference between the mean age of men and women. It was determined that of the 765 cases whose address information was determined 69% came from Edirne, 19% from Kırklareli, 10% from Tekirdağ, and 2% from other provinces. After March 2020, which was declared a pandemic, it was determined that the tests stopped completely for 2 months. In the evaluations made according to the monthly and annual averages, it was determined that the number of tests decreased to 1% monthly average for 2020, 26% for 2021, and 30% for 2022 10 months compared to 2019. When the positivity rates of the tests were evaluated, it was 20% before the pandemic, 39% after the pandemic, and 53% in March 2020.

Conclusions: During the pandemic period, it was not possible for patients with allergic diseases to access allergy skin tests and thus to quality health care in 2020; Afterwards, it became very difficult and it still has not improved even though 2.5 years have passed from the beginning. The increase in test positivity rates after the pandemic suggests that physicians apply because they have narrowed down the indications for testing and/or because patients feel more compelled.

Keywords: Covid-19, skin prick test, allergic diseases

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A LATE DIAGNOSED ADULT IMMUNODEFICIENCY CASE WITH FREQUENT EMERGENCY APPLICATIONS

Onur Incealtın¹, Nurhan Kasap²

Introduction: Primary immunodeficiency (PID) awareness has contributed to the increase in PID diagnosis rates in adults. Contrary to what is known, the European Society for Immunodeficiencies (ESID) reports that 66.37% of patients with PID were adults. LPS responsive beige-like anchor protein (LRBA) gene defect is an immune dysregulation disorder and should be considered in patients presenting with hypogammaglobulinemia, antibody deficiency, autoimmunity, and inflammatory bowel disease-like findings. Here, it is aimed to present a late-diagnosed adult case of LRBA deficiency.

Case: A 31-year-old female patient, who had recurrent admissions to the emergency department with complaints of respiratory tract and gastrointestinal tract infections, significant fatigue, and weight loss in the last five years, was diagnosed with lymphopenia, thrombocytopenia, hepatosplenomegaly, and axillary lymphadenopathy (LAP) on breast USG during routine examinations. Multiple LAPs were seen in PET CT, and CMV lymphadenitis was detected in the excisional biopsy. Evaluated as a result of the immunology consultation, the patient had significantly low serum IgG/IgG2, IgM, IgA, and IgE levels and negative antibody responses. Detailed immunophenotyping revealed low CD3⁺/CD4⁺/CD8⁺ T, CD19⁺ B, CD27/IgD⁻ (class-switched B), and CD16⁺CD56⁺ NK cells with elevated EMCD4⁺/CD8⁺ T (effector memory) and CD21^{low}CD38^{low} B (autoreactive) cells. With the diagnosis of immunodeficiency, immunoglobulin and Azithromycin prophylaxis were started. 'LRBA deficiency' was detected in clinical exome sequencing genetic analysis. Abatacept (CTLA-4-Fc fusion protein), a targeted therapy with proven efficacy in this disease, was started immediately and a significant regression was observed in the patient's clinical symptoms.

Conclusion: The presented patient has a history of recurrent admission to the emergency department with frequent infections and warning signs of immunodeficiency. Such patients should be referred to relevant clinics early when immunodeficiency is suspected. Early diagnosis and prophylactic treatment with targeted treatment are essential to reduce morbidity and mortality in immunodeficiencies.

Keywords: Primary immunodeficiency, lymphopenia, thrombocytopenia, frequent infections, LRBA deficiency

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CLINICAL EXPERIENCES OF GUILLAIN BARRE SYNDROME INCLUDING NEUROLOGICAL DIAGNOSIS AND PROGRAM; CASE SERIES

Ali Doğan¹, Emre Aydın², Duygu Yazgın Çilenger³, Yasemin Ünal⁴

Aim: Guillain Barré syndrome (GBS) is an acute inflammatory polyneuropathy often characterized by symmetrical weakness and areflexia.

Methods: Eight patients diagnosed with Guillain Barre syndrome, who were hospitalized in Bandırma Training and Research Hospital between 2016-2022, were reviewed.

Results: Radiological and electrophysiological examinations of the patients with a clinical diagnosis of Guillain Barre were performed. No pathology was detected in the radiological examinations of the brain and spinal region. In the electrophysiological examination, the examination of all patients was compatible with polyneuropathy of demyelinating character. Protein increase in cerebrospinal fluid examination was observed in all patients. Patients were treated with 0.4 gr/kg/day intravenous immunoglobulin for 5 days. Five of the eight cases were followed in 2020-2021, which is considered a pandemic period. Three of these five cases were positive for covid pcr (polymerase chain reaction) was detected. One of the Covid PCR test positive cases was taken to the intensive care unit due to respiratory distress. During the follow-up of the patient in the intensive care unit, the patient was intubated and connected to a mechanical ventilator. The patient died due to autonomous involvement of Guillan Barre syndrome. The other 7 cases were referred for rehabilitation treatment after they were stabilized after their medical treatment was finished. Morbidity and mortality can be seen as a result of both covid and covid-related complications. In our case, a case of guillan barre due to covid resulted in mortality.

Conclusion: It should definitely be considered in the etiology of covid guillan barre, which has been seen in recent years. It should be considered that the disease may have a mortal and severe course in guillan barre cases with covid pcr positivity. We should keep in mind that mortality and diseases such as Guillain Barre Syndrome can be seen more frequently during pandemic periods.

Keywords: guillain barre, covid, intravenöz immünglobulin, pandemic, acute polyneuropathy

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USING PLETH VARIABILITY INDEX (PVI) FOR CHILDREN WITH ASTHMA ATTACK

Orkun Aydın¹, Özlem Tekşam²

Aim: It is important to determine the severity of the attack quickly for the earliest and appropriate treatment in children presenting with an asthma attack. Patients with asthma attacks have varying degrees of pulsus paradoxus that correlate with illness severity. The pleth variability index (PVI) is a surrogate measure of pulsus paradoxus. We compared PVI with MPIS, another predictor of asthma attacks, and aimed to investigate the role of PVI in the severity of asthma attacks.

Methods: Patients aged 2-18 years who presented to the pediatric emergency department between January 1st, 2019 and December 31st, 2021 with asthma attack complaints were included in the study. Patients with chronic disease were not included in the study. Vital signs (pulse, respiratory rate, oxygen saturation), MPIS (Modified pulmonary index score), and PVI values were re-measured at admission and after the first treatment.

Results: 52 patients were included in the study. According to the GINA asthma attack algorithm, 12 patients presented with mild (23%), 27 patients with moderate (51.9%), and 13 patients with severe (25) attacks. While the mean MPIS was 9 (6-12) at admission, it was 7 (4-9) after treatment. The average of the measured PVI values was found to be 29 (3-8) at admission, and 28 (5-8.25) after treatment. PVI values at admission and after treatment did not correlate with PVI ($p = 0.091$, $p=0,802$, respectively). Additionally, no statistically significant patterns were demonstrated when trending the change in PVI after 1st hour of therapy in the ED.

Conclusions: Our study did not demonstrate a correlation between PVI and MPIS. Additional studies are necessary to help clarify the relationship between PVI and the clinical course of children with asthma attack.

Keywords: Asthma, asthma severity, pulsus paradoxus, pleth variability.

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ABSTRACTS BOOK

NURSING AND MIDWIFERY ORAL PRESENTATION

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

COMPARISON OF NORTON AND BRADEN PRESSURE WOUND RISK ASSESSMENT SCALES IN DETERMINING THE PRESSURE WOUND DEVELOPMENT RISK IN ELDERLY PATIENTS

İbrahim Kiyat¹, Ayfer Özbaş²

Aim: This study was carried out descriptively and comparatively in order to reveal the effectiveness of Norton and Braden Scales in determining the risk of developing pressure wound in elderly patients.

Methods: The study was conducted in 130 patients aged 65 and over. The patients' pressure wound risk was assessed daily by the researcher simultaneously with the Braden and Norton scales. The data in the study were collected using the "Socio-demographic and Clinical Characteristics Form", "Body Mass Index", "Braden Pressure Wound Risk Assessment Scale" and "Norton Pressure Wound Risk Assessment Scale". In the statistical analysis of the data; Shapiro Wilk and Mann Whitney U test, ROC analysis, sensitivity, selectivity, positive and negative predictive values, reliability coefficient, Kappa test statistics, stepwise regression analysis were used.

Results: The mean age in the study was 75.0 ±8.3 years in patients who did not develop pressure wound; It was found that the patients who developed pressure wound were 76.1±9.7 years. The reliability coefficient of the Braden Scale was 0.82; Norton Scale was found to be 0.89. Kappa coefficient (0.683) showed significant agreement between the two scales (p<0.001). The sensitivity, specificity, positive and negative predictive value and area under the ROC curve of the Braden Scale were calculated as 100%, 32.7%, 18.3%, 100% and 0.89%, respectively. On the other hand, the sensitivity, specificity, positive and negative predictive and area under the ROC curve values of the Norton Scale were calculated as 100%, 40.7%, 20.2%, 100% and 0.88, respectively.

Conclusions: It was determined that the reliability of both scales was high for elderly patients and the ability to distinguish patients at risk was close to each other.

Keywords: Elderly patient, nurse, pressure ulcer/wound/sore, pressure ulcer/wound/sore prevention, risk assessment scale

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EFFECT OF HEALTH PRACTICE NOTIFICATION (HPN) ON THE CARE AND TREATMENT OF CANCER PATIENTS; A NURSE EXPERIENCE

Rana Gümüş¹, Seher Başaran Açıl², Sergül Duygulu³

Cancer is an acute or chronic disease, the treatment of which includes both surgery and advanced technologies, is complex, and costly, but more importantly, the care is intensive and requires special attention. Cancer patients, whose treatment methods differ according to the diagnosis stages, are not only in oncology clinics; They are cared for or also treated in surgery, gynecology, or internal medicine clinics. In this study; the place of cancer in our country's policy documents, the care and treatment process of patients diagnosed with cancer, its financial dimension, and the reflections of the Health Practice Notification (HPN) on the care of cancer patients are exemplified by nurses' experiences and solutions are offered.

In this study a nurse will share her experiences who care oncology patient in the oncology unit in a public university hospital. The effects of HP in the treatment and care of patients diagnosed with cancer are explained with exemplary experiences. Examples include not receiving timely care and unethical practices with the economic burden on the person receiving/not receiving care and the hospital, the economic burden on the person receiving care, the economic burden on the person receiving/not receiving care and the hospital, and the unethical practices and not receiving the needed care/treatment. It has been discussed in terms of the risk and economic burden it brings to the hospital.

While the nurses responsible for cancer patients' care make the ambient conditions suitable in order to provide the necessary care in their clinics, they have limitations to use and provide the required materials for their treatment. Nurses, nurse managers, politicians, and health care managers should be aware of the effect of HPN on cancer patients' care

Keywords: Experiences, nurse, cancer, cancer patient, Healthcare Practice Communiqué.

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DETERMINING THE EFFECT OF THE SOCIAL SUPPORT AND BODY IMAGE ON THE QUALITY OF LIFE PERCEIVED BY WOMEN TAKING DIALYSIS

Birgöl Alakaş¹, Semra Elmas²

Aim: This study was conducted as a descriptive and cross-sectional study in order to determine the relationship between the effect of body images on the quality of life of women receiving hemodialysis treatment and their perceived social support.

Methods: The study was conducted with 85 female patients receiving dialysis treatment in all hemodialysis units affiliated to the Provincial Health Directorate between March and July 2021. The data were collected through face-to-face interviews with individuals using the "Patient Description Form", "Body Image Quality of Life Inventory (BIQLI)" and "Multidimensional Scale of Perceived Social Support (MSPSS)".

Results: The total mean score of BIQLI of the women was determined as 13.07±19.41. It was determined that when the education level, income level, number of children, presence of additional chronic diseases, diet compliance, general appearance satisfaction and exercise levels of the women included in the study increased, and the duration of hemodialysis treatment decreased, the mean score of the effect on BIQLI and self-worth increased. The effect of body image on quality of life; It was found that it was not affected by factors such as marital status, family type, employment status, age and body mass index. The mean MSPSS total score of the women was 54.44±12.53. Participants of the research; In the presence of children, it was found that as the satisfaction with exercise and general appearance increased, the MSPSS score averages increased and were statistically significant.

Conclusion: As body image quality of life increases, perceived social support increases.

Keywords: Body image, hemodialysis, nursing, social support, quality of life

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TRANSGENERATIONAL TRANSMISSION OF TRAUMA

Emre Çiydem¹

The intergenerational transmission of trauma has begun to be examined in the literature by defining the mental problems seen in the children of individuals who survived the Holocaust. Since this date, the definition of the concept has been explained in more and more detail. In this respect, the intergenerational transmission of trauma means that the traumas experienced by one generation are passed on to the next generations, even though they are not exposed to the same event. The aim of this review is to examine the intergenerational transmission of relational traumas in the context of various approaches.

Today, various approaches such as cognitive transition mechanisms, attachment theory, social learning theory, psychoanalytic theory, psychohistory approach and epigenetic approach are used to explain the intergenerational transmission of trauma. Cognitive transition mechanisms suggest that the child develops various maladaptive thought patterns due to exposure to parental trauma. Attachment theory suggests that early relationships with primary caregivers tend to recur in later life. Social learning theory attributes the intergenerational transmission of trauma to the imitation of family experiences by the child. Psychoanalytic approaches suggest that the parent's unconscious desires, desires, and fantasies, and conflicts with their own parents, reappear in their relationship with their own children. The psychoanalytic approach suggests that the unconscious desires, wishes, fantasies and conflicts of the parents are passed on to the next generations through parent-child relationships. Parenting styles are emphasized in the psychohistory approach. The epigenetic approach focuses on changes in the chemical coating or methylation of chromosomes that may occur due to stress and trauma.

It is important to adopt a multidimensional approach in explaining the intergenerational transmission of trauma. Etiological factors should be evaluated holistically in the treatment of psychopathology due to intergenerational trauma.

Keywords: Transgenerational transmission, trauma, relational traumas

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THE RELATIONSHIP BETWEEN SENIOR NURSING STUDENTS' LOCUS OF CONTROL AND PERCEPTIONS OF READINESS FOR PRACTICE

Bahar Kuleyin¹, Seher Başaran Açıl²

Aim: This research aimed to determine the relationship senior nursing students' locus of control and perceptions of readiness for practice.

Methods: This descriptive-relational study's sample was snowball sampling and consisted of 301 senior students from nursing schools across Turkey. Data were collected using the Descriptive Characteristics Form, the Locus of Control Scale, and the Casey–Fink Readiness for Practice Scale. Data were collected from 2 to 21 June 2021 via Google Forms. Research data was analyzed by using SPSS 21. Descriptive statistics, the Kolmogorov–Smirnov test, the Mann–Whitney U test, the Kruskal–Wallis test, and Spearman's correlation coefficient were used to analyzed the research data. A p value of < 0.05 was accepted as the level of significance for the statistical tests.

Results: Senior nursing students' had a moderate internal locus of control (median = 121), and their perception of readiness for practice was moderate (median = 2.93). A positive and low-level significant correlation of 0.240 was found between the Locus of Control scale and the Casey–Fink Readiness for Practice scale scores. According to the personal information form; there was no significant difference between the locus of control and readiness levels of the students according to their age. But significant difference was found according to their working status and collaborative work with other health professionals during their clinical practices.

Conclusions: As students' external locus of control increases, their perception of readiness for the profession increases; and as students' internal locus of control increases, their perception of readiness for the profession decreases. However, these correlations were weak, not strong. These results; For nurse educators, it can provide interventions to evaluate and improve students' locus of control and readiness perceptions. With the interventions, it can be ensured that students graduate with an internal locus of control and ready to practice the profession.

Keywords: Nursing, Nursing student, Locus of control, Readiness for practice

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WOMEN'S PERCEPTIONS OF SEXUALITY AND SEXUAL VIOLENCE: A QUALITATIVE STUDY

Ebru Cirban Ekrem¹, Aylin Kurt²

Aim: Sexuality includes how people perceive themselves or others as a sexual being, how they discover their knowledge and experience of sexuality, desire and pleasure through biopsychosocial factors. Sexual violence, on the other hand, refers to a sexual experience in which freely decided sexual consent is jeopardized. Victims of sexual violence may be unaware that their sexual rights have been violated. In this case, women are unlikely to report sexual violence or leave this sexually challenging relationship. The aim of the study was to determine women's perceptions of sexuality and sexual violence.

Methods: This qualitative study was conducted by in-depth interviews with 18 women who met the inclusion criteria. In-depth and semi-structured interviews were held between December 2021 and July 2022. Content analysis was used in the analysis of the data.

Results: Three themes were identified: (1) the building block of marriage (2) sexuality as violence (3) the effects of sexual violence. Participants viewed sexuality as a fundamental element for the continuation of marriage and spousal fidelity. The participants emphasized that sexuality/sexual relationship is necessary for marriage, that men think differently about sexuality, that when there is no sexual desire, the sexual function is an act of violence in which the woman is a sex object, and that sexual intercourse that develops as a result of coercion causes physical and psychological negativities. In addition, some women were also exposed to verbal and psychological violence of a sexual nature.

Conclusion: Sex education is a basic necessity in our country, which has a patriarchal society and where sexuality is considered taboo. Sex education should be offered to individuals in the form of lifelong learning from an early age. It is thought that there is a need for different studies that examine sexuality and sexual violence from the perspective of men.

Keywords: Sexuality, sexual violence, violence, women

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EFFECT OF COVID-19 VACCINES ON MENSTRUAL CYCLE CHANGES AND QUALITY OF LIFE

Zümrüt Bilgin ¹, K. Burcu Çalık ¹

Aim: This study aimed to determine the effect of COVID-19 vaccines on menstrual change and quality of life.

Methods: The research was carried out with the participation of female students studying health sciences at a university. A Google form was created digitally by the authors. 593 students participated in the form shared via Whatsapp on January 3, 2022.

Results: The mean age of the participants was 20.73±2.83 years. A correlation was found between the COVID-19 vaccine type and the rates of side effects ($p < 0.05$). The rate of side effects reported by students was higher in the Pfizer-BioNTech vaccine (36%) than in the Sinovac vaccine (11.7%). The rate of dysmenorrhea before vaccination was 76.4%, this rate was 77.8% after the first dose and 74% after the second dose. The students stated that after the first dose of vaccine (55.6%), the number of days of menstrual bleeding increased more than the second dose (10.1%). After the first dose (44.4%), the amount of menstrual bleeding increased more than the second dose (11.3%). The study also found a significant relationship between the impact of the COVID-19 pandemic on the quality of life and the mean score of the scale.

Conclusion: The COVID-19 vaccine increased the number of menstrual bleeding days and the amount of bleeding. Considering the duration of protection of the vaccine, it is thought that multicenter studies are needed to determine the effect of the vaccine on menstrual changes in women in the fertile age group with our current knowledge.

Keywords: COVID-19 vaccine, dysmenorrhea, menstrual change, menorrhagia, life quality

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REFLECTION OF MURDERES OF WOMEN IN THE MEDIA ON DIGITAL PLATFORMS: AN INVESTIGATION ON THE MONUMENTS COUNTER

Abdurrahim Uyanık¹, Özlem Seymen²

Aim: Violence, which continues to increase day by day in the world and in our country, is an important human problem. Violence, which exists in every period of human history, is mostly applied to women. Violence against women is an important social problem that needs to be tackled in our country as well as all over the world. This study aimed to examine violence against women with digital monument data.

Methods: The study was carried out retrospectively in order to examine the news of violence against women published on the memorial counter. 271 news between 01.01.2022 and 01.09.2022 were analyzed. Among 271 news items 5 were the same news, 8 news with missing sociodemographic data on offenders and female victims of violence were excluded from the study. The sample of the study consisted of 258 reports of violence against women.

Results: The mean age of the 258 women who were subjected to violence in the published news was 37,1 ±14,57 years, and 42,6% of them were married and 21,2% woman was lost their lives by family members. 45.7% of the women who died were killed due to arguments and 36% for reasons that could not be determined; 51.9% of them were killed by firearms and 21.7% by cutting tools; 5.4% of the women who died had a request for protection. Acts of violence against women were most frequently reported in Marmara Region (37,6%).

Conclusion: The way digital monument data increases every year, the way the media commits murders is different. Media is one of the important tools in preventing violence against women. In order for the news in the media to defend women's rights and create social awareness, it can be recommended to increase trainings, awareness-raising activities and accurate news broadcasting.

Keywords: Digital memorial, woman, media, violence

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TURKISH VALIDITY AND RELIABILITY OF THE EVIDENCE-BASED PRACTICE QUESTIONNAIRE FOR NURSES: A METHODOLOGICAL STUDY

Burcu Çakı Döner¹, Şirin Çelikkana², Zeynep Güngörmüş³

Aim: The "Evidence-based Practice Questionnaire for Nurses", created by Upton et al. in 2006, was tested in this study to determine its validity and reliability in Turkish.

Methods: 217 nurses made up the sample for this methodological study. Between November 18, 2021, and April 15, 2022, the study data was gathered online (through WhatsApp and email). The programs IBM SPSS 26 and AMOS 24 were used to examine the data.

Results: To evaluate the questionnaire's validity, content validity, criterion, and construct validity (both exploratory and confirmatory) were done. The questionnaire's content validity index was discovered to be 0.972. Internal criterion validity (lower-upper groups comparison) was found to have acceptable values of $t=28.924$, $p=0.000$, and item-total correlations varied from 0.562 to 0.827 across all subscales. In the exploratory factor analysis, the "Kaiser Meyer Olkin" and "Barlett tests" (KMO: 0.955, Barlett's test χ^2 : 4504,032 $p<0.001$), the eigenvalue analysis (2 factors with an eigenvalue above 1), and the total variance explanation (64.245%) were explored in order to analyze the construct validity. Most of the fit indices of all subscales were found to be in the acceptable/excellent fit levels in confirmatory factor analysis. Internal consistency reliability coefficients (Cronbach's Alpha: 0.963), item-total score correlations (0.562 -0.827), scoring consistency (Intraclass correlation: 0.963), Hotelling's T2 Test ($F=11,606$, $p=0.000$), standard measurement error (SEM: 1.746.98), and top-down impact analysis (min $fr=0.5\%$, max $fr=1.4\%$) were used to assess the subscales' reliability.

Conclusion: The research revealed that the Nurse Evidence-based Practice Questionnaire is statistically valid and reliable.

Keywords: Nurses, clinical nursing research, evidence-based nursing, reproducibility of results

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THE EFFECT OF LAVENDER INHALATION AROMATHERAPY ON OCCUPATIONAL FATIGUE AND EMPLOYEE PERFORMANCE OF NURSES: A QUASI-EXPERIMENTAL STUDY

Yadigar Ordu ¹, Nurcan Çalışkan ²

Aims: The study aimed to determine the effect of lavender inhalation aromatherapy on occupational fatigue and the employee performance of nurses.

Methods: This quasi-experimental study was conducted in July and September 2022 with 82 nurses working in the clinics of a state hospital in a province of Turkey. The data were collected with the Nurse Information Form, Occupational Fatigue Exhaustion Recovery Scale, and Performance Scale. After the nurses filled in the data collection forms (pre-test), the lavender oil in a 20 ml glass bottle with an oil dropper, and a censer were left in the nurse rooms located in the clinics. Lavender oil was applied by inhalation and remained in nurse rooms for four weeks. After this four-week lavender inhalation, nurses completed the data collection forms again (post-test). Data were analyzed with the SPSS 21.0 package program.

Results: 62.2% of the nurses had no knowledge about aromatherapy, 72% of them had no knowledge about lavender oil, and 92.7% did not use any aromatherapy method before. After lavender inhalation, there was a significant difference in the mean pre-test and post-test scores of the chronic fatigue, acute fatigue, and recovery sub-dimensions of the nurses ($p=0.0001$). On the contrary, there was no significant difference in the mean pre-test and post-test scores of the employee performance sub-dimension ($p>0.05$).

Conclusion: Lavender inhalation aromatherapy decreased the mean chronic and acute fatigue score of nurses and increased the mean recovery score, however, it did not affect employee performance.

Keywords: Aromatherapy, employee performance, nurses, lavender inhalation, occupational fatigue.

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EFFECTS OF PHYSICAL THERAPY APPLICATIONS ON PAIN, HOPELESSNESS, ANXIETY, DEPRESSION AND QUALITY OF LIFE IN INPATIENTS RECEIVING PHYSIOTHERAPY

Yasemin Özyer¹, Aybike Köse²

Aim: This study was planned to investigate the effects of physical therapy applications on pain, hopelessness, anxiety, depression and quality of life in inpatients receiving physiotherapy.

Method: The descriptive type study was conducted with 155 inpatients who received physical therapy in a state hospital affiliated to Samsun Provincial Health Directorate, and volunteered to participate in the study. Data were collected through the face-to-face interview method by administering the Patient Survey Form (Questionnaire), SF-12 Quality of Life Scale, Depression, Anxiety and Stress Scale, and Beck Hopelessness Scale.

Results: The mean age of the individuals participating in the study was 59.33±15.30 years. The comparison of the participants demonstrated that pain and anxiety levels were higher in female participants and their hopelessness scores were low, that patients who were satisfied with the treatment had a lower pain level than did the patients who were not satisfied with the treatment, and that patients with paralysis had higher stress levels and lower quality of life scores. There was a moderate positive correlation between the mean scores obtained from the overall Beck Hopelessness Scale and the Depression, Anxiety and Stress Scale, a weak negative correlation between the mean scores obtained from the Physical Health subscale of the SF-12 Quality of Life Scale and Depression, Anxiety and Stress Scale, and a moderate negative correlation between the mean scores obtained from the Mental Health subscale of the SF-12 Quality of Life Scale and Depression, Anxiety and Stress Scale.

Conclusions: It was determined that the patients who received treatment were satisfied with the physical therapy applications, that their pain and stress levels were low in terms of the reason for receiving treatment, that their quality of life was high, and that their hopelessness levels were low.

Keywords: Pain, anxiety, depression, physiotherapy, quality of life

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THE ROLE OF CLINICAL EDUCATION ABOUT SURGICAL NURSING IN PAIN MANAGEMENT KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS

Sacide Yıldızeli Topçu¹, Fadime Gök²

Aim: Pain is considered as one of the most common factors causing people to seek medical care. An important responsibility of health professionals is to manage pain and nurses play a crucial role in it. Therefore, nursing students must have pain management knowledge and skills before graduating to fulfill this role. The objective of the study was to examine pain management knowledge and attitudes of nursing students during their clinical education about surgical nursing.

Methods: This descriptive, cross-sectional study was conducted with 260 undergraduate nursing students who were studying in nursing education programs of two universities in Turkey. The Knowledge and Attitudes Survey Regarding Pain (KASRP) and student demographic information form were used for data collection. Data were analyzed with descriptive analysis and t-test and variance analysis.

Results: The mean score on KASRP was 6.78 ± 2.23 . Of all the students, 48.8% reported that they only preferred pharmacological treatments for pain management. The mean score on The Knowledge and Attitudes Survey Regarding Pain significantly differed in terms of the type of high school the students graduated from ($p=0.044$) and the unit where they received clinical education ($p=0.025$).

Conclusions: The students had a moderate mean score on The Knowledge and Attitudes Survey Regarding Pain. The students graduating from high school and those receiving their clinical education in cardiovascular and thoracic surgery units had significantly higher mean scores on pain management knowledge and attitudes.

Keywords: Knowledge and attitudes, nursing students, pain management.

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TRANSCULTURAL APPROACHES IN OBSTETRIC SITUATIONS RELATED TO WOMEN'S HEALTH

Şükran Başgöl¹, Semra Elmas²

Aim: Cultural rituals applied during pregnancy, childbirth and the postpartum period and the social status of women directly affect mother-child health. As a matter of fact, while some of these applications are harmless, some applications can be extremely risky. To discuss the importance of transcultural approaches and the roles of nurses in obstetrics related to women's health.

Results: Culture is a set of norms and values that have existed throughout human history and affect people's way of life, attitudes and behaviors, and the perception of the concepts of health and disease.

The meaning attributed to pregnancy also varies according to culture. The way pregnancy is perceived is affected by many factors such as women's social status, socioeconomic status, social myths, and religious characteristics. Therefore, knowing how this period is perceived by society, attitudes, and practices by the nurse increases the acceptability of the care provided and the quality of care. The care that is insensitive to culture and ignores cultural practices is rejected by society and this may lead to the continuation of attitudes that negatively affect health. For this reason, it is recommended to use transcultural care theory, which consists of four areas (individual characteristics, communication characteristics, family and social roles, health and disease practices) in the obstetric evaluation of women and nursing care.

Conclusions: For health professionals working in the field of women's health to develop transcultural health care practices; using cultural models and guides, accessing cultural data in more systematic and standardized ways, staying away from racist approaches and attitudes, conducting research on the relationship between culture and women's health and the effectiveness of transcultural care, integrating intercultural care into the education programs of nursing students, especially women's health and therefore women's health. is very important for public health.

Keywords: Transcultural, obstetric, women health

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USE OF ACUPRESSURE IN THE TREATMENT OF POSTPARTUM DEPRESSION

Resmiye Kaya Odabaşı¹, Yasemin Sökmen², Ayten Taşpınar³

The postpartum period is a period with a high risk for the emergence of psychological problems. The most common psychological disorder in this period, which is very important for the mother and the baby to be treated, is postpartum depression. Although the incidence varies due to different diagnostic methods, it is reported to vary between 4-62% in the world and 6-58% in our country. Postpartum depression is an important health problem that needs to be treated because it affects mother-infant attachment, especially maternal health, and the growth of healthy individuals, families and society. In the treatment, complementary and alternative treatments are used in the presence of mild and moderate postpartum depression, while complementary and alternative treatments are used together with pharmacological treatment in severe cases. Complementary and alternative therapies used in the treatment of postpartum depression include massage, music therapy, hemeopathy, laughter therapy, dance therapy, acupuncture and acupressure. Acupressure is a non-invasive complementary and alternative technique that shares common features with acupuncture. Results from the studies indicated that the effects of acupressure on the neurotransmitter levels of serotonin and noradrenaline may be one of the potential mechanisms underlying the therapeutic effects. On the other hand, the pressure applied to the acupressure points regulates the nervous system to create feelings of calm and relaxation. Although there are limited studies in the literature on the use of acupressure in the treatment of postpartum depression, it is reported that acupressure is effective in improving postpartum depression. Acupressure, which is a drug-free, cost-free, easy and effective method, may reduce the need for taking medication during breastfeeding. It is important for midwives and other health professionals to have knowledge about acupressure so that they can inform and counsel women. The aim of this review is to discuss the use of acupressure in the treatment of postpartum depression in line with the current literature.

Keywords: Acupressure, postpartum depression, complementary therapy, midwifery care.

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AN IMPORTANT PROBLEM IN KIDNEY HEALTH: KNOWLEDGE GAP

Belgüzar Kara¹

The prevalence and incidence of kidney disease all over the world continues. Globally, 850 million people are estimated to have kidney disease. Currently, 10% of people worldwide have chronic kidney disease (CKD). Kidney disease is a prevalent condition that is associated with high morbidity and mortality, health service use, and healthcare costs. The mortality rate for kidney disease is expected to increase over time and is projected to be the 5th most common cause of deaths by 2040. Early identification of high-risk patients for kidney disease is essential to ensure proper management and better health outcomes. However, knowledge gap is blocking the fight against kidney disease and increasing disease-related deaths that are easily preventable. It is well-known that the continuous and persistent knowledge gap about kidney disease is demonstrable at all levels of health care. Recent studies from the International Society of Nephrology also reported patient knowledge or attitude (63%) as one of the leading barriers to optimal end-stage kidney disease care worldwide. Further, it is emphasized that as many as 9 in 10 people with CKD are unaware of their condition. Awareness rate of patients with CKD is also less than 2% in Turkey. An essential step in this process is increasing the education and awareness of the general population regarding kidney health, which can help the health system reduce the burden of the disease. Community-, healthcare workers- and public health policy makers-level interventions targeting kidney health need. Therefore, this review aims to provide an overview of the importance of kidney disease and recommendations for establishing a successful disease management program.

Keywords: Kidney disease, kidney health, knowledge gap

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DEVELOPMENT AND PSYCHOMETRIC EVALUATION OF THE BELIEFS ABOUT HOME HEMODIALYSIS SCALE

Belgüzar Kara¹

Aim: Home hemodialysis in end-stage renal disease improves survival, morbidity, and the quality of life of patients, but it remains underutilized. There is no valid and reliable instrument that evaluates health beliefs related to home hemodialysis of patients. This study aimed to develop the Beliefs about Home Hemodialysis Scale (BHHS) and evaluate its psychometric properties in patients on in-center hemodialysis.

Methods: This methodological study was performed on a sample of 102 patients on in-center hemodialysis. Data were collected using a questionnaire, the Perceived Social Support from Family Scale, and the BHHS. Descriptive statistics, Mann-Whitney U test, Pearson's correlation coefficients, and psychometric tests were used for data analysis. A p-value of < 0.05 was considered to be statistically significant.

Results: The exploratory factor analysis yielded a four-factor structure as perceived benefits, perceived barriers toward the environment, perceived barriers toward the procedure, and perceived barriers toward socioeconomic support. The BHHS had acceptable internal consistency (Cronbach's alpha coefficient = 0.69-0.91), test-retest reliability (intraclass correlation coefficient = 0.88-0.95), concurrent validity and known group validity.

Conclusions: The BHHS is a valid and reliable instrument for assessing the perceived benefits and barriers to home hemodialysis in patients on in-center hemodialysis. A greater understanding of the beliefs about home hemodialysis of patients and its related factors could contribute to the implementation of tailored interventions.

Keywords: Beliefs; home hemodialysis; instrument; reliability; validity

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BEING A PSYCHIATRIC NURSE: A QUALITATIVE STUDY

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Aim: In this study, it was aimed to evaluate the experiences and opinions of nurses working in psychiatry clinics related to being a psychiatric nurse.

Method: In this qualitative research the phenomenological design and accessible case sampling was used. In-depth face-to-face interviews were performed with 16 nurses who working in a branch hospital in the center of Samsun. The researchers' self-prepared semi-structured interview form and personal information form were used to collect the data. Content analysis, descriptive and phenomenological analysis were used in the analysis of the data.

Results: In the study, interview questions were used to gather information on nurses' prior professional experiences as well as the impact of psychiatry clinical experiences on interpersonal relationships and professional development. As a result of the analysis of the data, the main themes of "*being a nurse in a psychiatry clinic*" and "*future of the profession*" and sub-themes "must have characteristics, different aspects, achievements, good luck and wish, psychiatric nursing through metaphors" has been obtained.

Conclusion: As a result, it has been revealed that psychiatry clinical experience has a positive effect on the personal and professional development of nurses, creates awareness about the importance of mental health and is motivating for the development of the profession

Key Word: Nursing, qualitative research, psychiatric nursing, psychiatric clinic

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FREQUENCY OF OCCURRENCE AND CHARACTERISTICS OF RESPIRATORY DEVICE-RELATED PRESSURE INJURIES IN ADULT PATIENTS: A SYSTEMATIC REVIEW OF THE LITERATURE

Öznur Erbay Dallı¹

Aim: To determine the frequency and characteristics of respiratory device-related pressure injuries (PIs) in adult patients.

Methods: The PRISMA checklist was followed for this systematic review. A literature search was conducted without language and year restrictions in five electronic databases (PubMed, Web of Science, Embase, CINAHL, Cochrane Library) by using the terms “adult,” “ventilation,” “respiration,” “medical device,” “pressure injury,” and their synonyms. Conference papers, book chapters, literature reviews, and case reports were excluded. Data of the studies were about the following aspects were extracted: population description (age, gender), study setting, objectives, occurrence rate of respiratory device-related PIs, type of the respiratory device, type of the pressure injuries (stage, skin or mucosa) and affected areas. Duplicate articles were detected and excluded using the Mendeley Reference Manager program.

Results: Twelve articles were included in this review. Most of the patients in the studies were intensive/critical care patients, males and older than 60 years old. The occurrence rate of respiratory device-related PIs ranged from 2% to 93%. Non-invasive masks and endotracheal tubes were the most common respiratory devices to cause PIs. Stage II PIs were the most common. Most of the PIs were reported to have affected the nasal bridge, lips, and labial commissures.

Conclusion: There is a high occurrence rate of respiratory device-related PIs in adult patients. In order to minimize the risk of PIs associated with non-invasive masks and endotracheal tube devices, healthcare professionals should monitor the patients' skin condition appropriately, especially in anatomical locations more commonly affected by these injuries.

Keywords: Pressure injury, medical device, respiration

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THE CORRELATION BETWEEN NURSING STUDENTS' LEVELS OF FEAR AND STRESS RELATED TO THE COVID-19 PANDEMIC AND THEIR COMPLIANCE WITH STANDARD PRECAUTIONS

Fatma Yılmaz Kurt¹, Naile Alankaya², Sevda Efil³, Selma Atay⁴

Aim: The aim of this study was to examine the correlation between the fear and anxiety levels of nursing students regarding the COVID-19 pandemic and their compliance with standard precautions.

Methods: The study was designed as descriptive and relationship. The sample consisted of 509 volunteer students who attended universities in Turkey that offered nursing education. Data were collected using the "Personal Information Form," the "Fear of COVID-19 Scale (FCV-19S)," the "COVID-19 Anxiety Scale (CAS)," and the "Compliance with Standard Precautions Scale (CSPS)". The data were collected with an online questionnaire. To compare continuous data were used Mann Whitney U Test and Kruskal Wallis Analysis of Variance. Spearman Correlation Analysis was used to determine the relationship between scale scores. Ethical principles were adhered to at every stage of the study.

Results: The FCV-19S, CAS, and CSPS mean scores of the students were respectively, 17.49 ± 5.24 , 1.99 ± 3.54 , and 13.46 ± 3.61 . In the analyses, there was a moderate correlation ($p < 0.05$) between FCV-19S and CAS of the students, but no correlation was detected between CSPS and FCV-19S ($p > 0.05$) and CAS ($p > 0.05$). The mean FCV-19S score of female students (18.03 ± 5.26) and the mean CAS score (2.20 ± 3.78) were found to be higher and significant than the average of FCV-19S scores (15.57 ± 4.70) and CAS (1.23 ± 2.42) of male students.

Conclusion: It was determined that students had a moderate fear of COVID-19 and a low level of anxiety over COVID-19. However, fear of COVID-19 and COVID-19 anxiety levels were not correlated with the compliance with standard precautions.

Keywords: Anxiety, COVID-19, nursing, fear, standard precautions

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KNOWLEDGE, ATTITUDES AND BEHAVIORS OF MOTHERS ABOUT MILKING AND STORAGE CONDITIONS

Elifnur Karaağaç¹, Elif Balkan², Refika Genç Koyucu³

Aim: To evaluate the knowledge, attitudes and behaviors of mothers about expressing breast milk techniques and milk storage conditions.

Methods: The descriptive study was conducted online with 250 participants between January and May 2021. Women who are breastfeeding were included in the study. Introductory Information Form and Breastmilk Expression and Storage Conditions Questionnaire were used as data collection tools. Since the study was conducted on the online platform, no institutional permission was required. Ethics committee approval was obtained from the institution to which the researchers are affiliated. The analysis of the data was carried out through descriptive analyzes, with a 95% confidence interval and a 5% margin of error, assuming a significance level of $p < 0.05$.

Results: The average age of the mothers was found to be 29.96 ± 6.02 . It was determined that most of the participants (56.6%) fed their infants together with breast milk, formula and solid food. Of the mothers, 44.1% had received training on breastfeeding and storage conditions before, and 37.5% of them received this training from health professionals such as midwives, nurses and doctors. It was determined that 45.4% of the mothers participating in the study expressed their milk, 17.1% gave the expressed milk to their babies with a spoon and a glass, and 39.5% kept the milk in the refrigerator. When the milking habits of the mothers were evaluated, it was determined that 92.1% of them washed their hands before expressing their milk, and 82.9% of them cleaned their udders before the milking process. It was determined that most of the mothers had correct information about milk storage conditions.

Conclusions: It can be suggested that mothers have good knowledge about expressing and storing milk, but counseling should be provided in terms of the importance of exclusive breast-feeding and the effect of bottle and similar devices.

Keywords: Breastmilk, breastmilk storage, breastfeeding, level of knowledge, behavior

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THE EFFECT OF RELAXATION EXERCISES APPLIED AFTER LAPAROSCOPIC CHOLECYSTECTOMY ON PAIN AND VITAL SIGNS

Gönül Yılmaz Dünder¹, Seher Deniz Öztekin²

Aim: This study was conducted to examine the effects of relaxation exercises applied after laparoscopic cholecystectomy on pain, systolic and diastolic blood pressure, body temperature, pulse rate, respiratory rate and oxygen saturation.

Methods: The study was designed as a controlled quasi-experimental pretest-posttest research in non-randomized groups. Data were collected between January 2019 and December 2019. The study was conducted with 80 patients (Experimental group=40, Control group=40) who underwent laparoscopic cholecystectomy in the general surgery clinics of a district state hospital in Balıkesir and met the inclusion criteria. Relaxation exercises were applied to the patients in the experimental group at 6th postoperative hour. Before starting the study, ethics committee approval, institutional permission, and written and verbal consents of the patients were obtained.

Results: After the relaxation exercises, the pain levels of the patients in the experimental group were significantly lower than the patients in the control group. In the sequential measurements performed after exercise, it was determined that the mean pulse and respiratory rate of the patients in the experimental group were significantly lower than the patients in the control group. In addition, the mean oxygen saturation of the patients in the experimental group at the 1st hour after exercise was 96.17 ± 2.19 spO₂, that of the control group was 94.45 ± 1.22 spO₂, and the oxygen saturation values of the experimental group were significantly higher than the control group in all measurements after exercise.

Conclusion: Relaxation exercises applied after laparoscopic cholecystectomy can be used safely in nursing practices as they reduce postoperative pain, decrease pulse and respiratory rate, and increase oxygen saturation.

Keywords: Relaxation Exercises, pain, laparoscopic cholecystectomy, vital signs, nursing care

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ATTITUDES AND BEHAVIORS OF WOMEN FROM THE BEGINNING OF BIRTH TO ADMISSION TO THE DELIVERY ROOM

Suzi Özdemir¹, Fatma Deniz Sayiner², Elif Balkan³

Aim: To determine how women define the onset of labor, when they apply to the health institution, their first feelings, attitudes and behaviors from the onset of labor until they go to the hospital.

Methods: This study was conducted in a descriptive and cross-sectional type, a state hospital in Kocaeli between 30 September 2019 and 01 June 2020. All women (n=325) who had a low-risk pregnancy period and accepted to participate in the study were included in the sample without sampling.

Results: Of the participants, 31.1% stated that they attended the antenatal class and that the onset of labor symptoms were explained in the training. Of the participants, 26.2% said that the first sign of the delivery was regular contractions, 35% said that the first feeling they felt when the delivery started was fear, 34.5% said they were excited. When the attitudes and behaviors of the participants about the time to go to the hospital were examined, 84% said they had the decision-making authority, 79.4% were encouraged by their family/spouse, and 56.9% were excited and panicked. It was found that 21.5% of the participants had an obstetric complication at childbirth, 33.5% had oxytocin, 23.7% had fundal compression, and 49.2% had episiotomy at birth.

Conclusions: Women may feel fear, loneliness and anxiety with the onset of labor, and these negative emotions can slow down the progress of labor by triggering the secretion of catecholamines, which reduce the effect of the hormone oxytocin, which is necessary for labor. It is thought that the rate of women having a positive birth experience will increase by determining the attitudes and behaviors of women from the beginning of the delivery to the hospital, determining how they will be supported in this process, and strengthening the midwifery practices for this.

Keywords: Midwifery, normal delivery, prenatal care, childbirth support, midwife support

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DIAGNOSIS, TREATMENT, FOLLOW-UP PROCESSES AND DISEASE APPROACHES OF PREGNANT WOMEN DIAGNOSED WITH COVID-19

Sinem Güven Dinmez¹, Kafiye Eroğlu²

Aim: This research was conducted to determine the diagnostic, treatment, monitoring processes and gestational attitudes of pregnant women diagnosed with Covid-19.

Methods: The retrospective defining type study was conducted on 68 pregnant women who were monitored for Covid-19 in a district of Istanbul. Data were collected through the assessment form, and analyzed using descriptive statistical methods.

Results: It has been established that pregnant who received Covid-19 infected in the second and third trimester, diagnosed with tomography or swab, and had the most common symptoms of tiredness, coughing. They were isolated in their homes for more than 15 days, nearly half of whom did not receive medical treatment. They said that they felt fear and helplessness the most often. Half of pregnant state that they are less prone to pregnancy monitoring and prefer to have a C-section, while nearly half state that they disrupt pregnancy procedures and they planned to breastfeed their babies.

Conclusion: With Covid-19, we have determined that infected pregnant, they aren't able to benefit from routine monitoring and application of the pregnancy, need mental support, and move away from the idea of normal delivery. It is recommended that nurses initiate alternative practices such as online monitoring for pregnancy follow-up and counseling.

Keywords: Covid-19, pregnancy, nursing

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THE IMPORTANCE OF BREASTFEEDING IN SUSTAINABLE DEVELOPMENT GOALS

Tuğçe Sönmez¹

The World Health Organization (WHO) and UNICEF recommend that mothers breastfeed their newborns in the first half hour or at least one hour after birth, breastfeed exclusively for the first six months, and from the sixth month onwards to be nutritionally adequate, safe, age-appropriate, sensitive, semi-rigid and recommends continuing breastfeeding for two years or more, along with feeding soft foods. In line with these goals and objectives, it should be our most important duty to increase breastfeeding and ensure its sustainability.

If we examine the relationship between the Sustainable Development Goal (SDG) and breastfeeding; SDG 1-Elimination of All Forms of Poverty Everywhere; SDG 2- Ending Hunger, Food Security and Ensuring Better Nutrition Security; SDG 3- Ensuring Healthy Lives and Promoting Well-Being at All Ages; SDG 5-Achieving Gender Equality and Empowering All Women and Girls; SDG 8 - Promoting Uninterrupted, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All; SDG 12- Ensuring Sustainable Consumption and Production Patterns

In this respect, breastfeeding practices need to be protected, encouraged and supported in order to reach the SDGs. In addition to the benefits it will bring to the adult period and society, the contribution of the initiatives made to prevent nutritional deficiencies in the newborn and infancy period to the level of development of the country is inevitable.

Keywords: Baby, mother, breastfeeding, sustainability, goal

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THE RELATIONSHIP BETWEEN ACADEMICIANS' MENTAL HEALTH LITERACY LEVEL AND BELIEFS TOWARDS MENTAL ILLNESS

Cemre Sinem Gümüş¹, Dilek Avcı²

Aim: This research was carried out in order to determine the mental health literacy level of academicians and their beliefs towards mental illness, to examine the relationship between them and to determine the variables that affect their beliefs towards mental illness.

Methods: The research in descriptive and correlational design was carried out with 357 academicians working at Bandırma Onyedi Eylül University between July 2021 and February 2022. The data of the study were collected through the Personal Information Form, the Mental Health Literacy Scale and the Beliefs towards Mental Illness Scale. In the study, descriptive statistics, independent sample t-test, one-way analysis of variance, Pearson correlation analysis and multiple linear regression analysis were used to evaluate the data.

Results: Academicians' Mental Health Literacy Scale and Beliefs towards Mental Illness Scale mean scores were determined as 17.05 ± 3.75 and 69.40 ± 16.64 , respectively. It was found that there is a negative significant relationship between mental health literacy and beliefs towards mental illness. Also, it was determined that the variables affecting the beliefs towards mental illness were the studied department, receiving mental health literacy education, receiving psychiatric help before, having a family member with a mental disorder, wanting to work with someone with a mental disorder, encountering a student with a mental disorder in his professional life, and thoughts on the continuation of education of students with mental disorders. All variables in the model explain beliefs towards mental illness by 52.6%.

Conclusions: As a result of the research, it was determined that the mental health literacy level of the academicians was above the average. In addition, it has been determined that academicians have negative beliefs towards mental illness and these beliefs are affected by many factors.

Keywords: Academician, mental health literacy, beliefs towards mental illness

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THE EFFECT OF FATHERS' THOUGHTS AGAINST THEIR OWN FATHERS ON THE ATTACHMENT OF THEIR BABIES

Mustafa Kılavuz¹, Refika Genç Koyucu²

Aim: This research was aimed to be conducted by considering the effect of fathers' thoughts towards their fathers on their attachment to their babies.

Methods: The research was planned in descriptive type and was applied online to 212 new fathers with easy sampling method. Data were collected using the descriptive information form created by the researchers and the Father-Infant Attachment Scale.

Results: Before analyzing the data of the study, it was tested whether the data showed normal distribution. For the normal distribution, the Kurtosis and Skewness coefficients of the variables were examined. Accordingly, the total score of the Father-Baby Attachment Scale was -0.66,0.64; For Patience and Tolerance; -0.96,1.02, -0.37, -1.02 for the Pleasure in Interaction sub-dimension; It was determined as -0.93,0.13 for the Love and Pride sub-dimension. If the kurtosis and skewness values are between ± 2 , it can be said that the data are normally distributed. Since all values are between ± 2 according to the results obtained from the analysis, the data show a normal distribution.

Conclusion: Father-infant attachment is affected by their relationships with their fathers and socioeconomic factors. Considering that this situation may be affected by socio-cultural characteristics, it is thought that it is important to conduct studies on the subject in different regions.

Keywords: Father, attachment, baby,

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CANCER SCREENING ATTITUDES OF NURSES WORKING IN SURGICAL AND INTERNAL MEDICINE CLINICS: A CROSS-SECTIONAL STUDY

Seher Ünver¹, Cansu Ersin², Nefise Özlem İşler³

Aim: This study aims to assess the current views of nurses working in surgical and internal medicine clinics on cancer screening.

Methods: 108 nurses over the age of 30 who worked in the surgical and internal medicine clinics of a university hospital participated in this descriptive and cross-sectional study. Data collection forms included the "Attitude Scale for Cancer Screening" and the "Demographic Information Form" for sociodemographic inquiries. The independent sample T-test, one-way ANOVA-F test, and Pearson correlation test were employed to assess the difference, and the correlation between demographics and the overall scale scores. To examine the relationships between the variables of gender, chronic disease status, cancer screening status, clinical experience and the nurses' attitudes about cancer screening, multiple linear regression analysis was used.

Results: It was found that nurses working in internal medicine and surgery clinics had a positive attitude toward cancer screening. Female gender, having a chronic diseases, and having had a screening all positively associated with higher attitudes for cancer screening. Age and having more clinical experience both significantly affected nurses' attitudes toward cancer screening negatively. According to the multiple linear regression analysis, the attitudes toward cancer screening were substantially correlated with gender ($\beta=.258$, $p=.006$) and clinical experience ($\beta=-.264$, $p=.005$).

Conclusions: The study's conclusions emphasize that having a chronic illness, having had cancer screening in the past, and having little clinical experience are important factors for improving nurses' attitudes toward cancer screening. Additionally, to help them improve their attitude, it may also be suggested that male and experienced nurses should be encouraged to attend cancer screening programs.

Keywords: Cancer screening, surgical nursing, internal medicine nursing, attitude

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ETHICAL ATTITUDE LEVELS OF SURGICAL NURSES IN NURSING CARE: A CROSS-SECTIONAL STUDY

Seher Ünver¹, Nefise Özlem İşler², Cansu Ersin³

Aim: The aim of this study is determining the ethical attitude levels of surgical nurses.

Methods: This descriptive study was carried out with 143 nurses (73.3% of the total nurses). Data was collected at the surgical units (including surgical wards, intensive care units and operating room) of a research hospital between October 15, 2021-January 17, 2022. For data collection, the “Nurse Demographics Form” and the “Ethical Attitude Scale in Nursing Care” were used. The Mann-Whitney U test, the Kruskal Wallis-H test, and Spearman’s correlation tests were used to analyse the data. Prior to the start of the study, the ethical and institutional approvals were delivered.

Results: According to the results, the surgical nurses in this study had moderate level of ethical attitude. The ethical attitude scores of the nurses who received ethics training were statistically higher than those who did not ($U = 1594.000$, $p = .036$). The ethical attitude score and the length of the nurses' clinical experience were found to be significantly correlated ($r = .207$, $p = .013$).

Conclusion: As a result of this study, receiving an education about ethics and being experienced in surgical area are important in obtaining positive ethical attitudes. It is recommended to carry out ethics education during or after nursing education for surgical nurses to help them in dealing with ethical problems.

Keywords: surgical nursing, ethical attitude, surgical units

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THE EFFECT OF PILATES EXERCISES AND WHATSAPP TEXT MESSAGE BASED SUPPORT PROGRAM ON PREMENSTRUAL SYNDROME (PMS) SYMPTOMS: A RANDOMIZED CONTROLLED STUDY

Ayça Balmumcu¹, Nazan Öztürk²

Aim: This study was conducted to evaluate the effect of a support program based on pilates exercises and WhatsApp text messages on premenstrual syndrome symptoms (PMS) experienced by female university students.

Methods: This study is a randomized controlled, and quasi-experimental intervention research. This study included 30 students in the intervention and 29 students in the control groups. The data of the study were collected using the personal information form and the premenstrual syndrome scale. A support program including pilates exercises and sending text messages was applied for 8 weeks to the students in the intervention group, and no attempt was made to the students in the control group. Intervention and control groups were followed for 3 cycles for PMS symptoms.

Results: It was observed that the students in the intervention and control groups were similar in terms of health and menstrual characteristics that could affect premenstrual syndrome ($p>0.05$). The difference between the PMS scale first and third measurement values of the intervention and control groups was statistically significant in terms of depressive affect and PMS scale total scores. In both, the change in the intervention group was significantly higher than in the control group ($p<0.05$).

Conclusions: It was concluded that the support program based on pilates exercises and WhatsApp text messages which were practiced in this research, decreased the PMS symptoms considerably.

Keywords: Premenstrual syndrome, pilates exercise, whatsapp text message, university students.

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MISIMPLEMENTATION TENDENCIES OF THE NURSES WORKING IN A PAEDIATRIC CLINIC AND THE INFLUENCER FACTORS

Emel Odabaşoğlu¹, Ayda Çelebioğlu²

Aim: The study has been carried out as a definitive study in order to determine the misimplementation tendencies of the nurses working in a paediatric clinic and the influencer factors.

Methods: The study has been carried out in the paediatric clinics of a university hospital, three state and three private hospitals in Trabzon between September 2011 and September 2013. The scope of the study has been constituted by 195 nurses working in the paediatric clinics of the aforementioned hospitals. The scope of the study constitutes the paradigm of it as well. Personal Information Form and Malpractice Trend Scale (MTS) have been used for the collection of data.

Results: It has been determined that the total average point of the participant nurses is 4.63 ± 0.31 according to the MTS, and nurses' tendency to make a medical mistake is at a low level.

It has been diagnosed that the difference between the MTS total point and the sub-dimension point averages according to the nurses' marital status, childbearing, term of employment at occupation, term of employment at the unit, the institution that they serve, the number of the patients given for care per a day, the unit they currently work at, and the level of satisfaction is statistically significant ($p < 0.05$).

Conclusion: It has been seen that the tendency of the nurses working in paediatric clinics towards making a medical mistake is low and their tendencies towards making a mistake have been affected by some personal or occupational features.

Keywords: Children, malpractice, nurse.

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THE RELATIONSHIP OF PREGNANT WOMEN'S FEAR OF CORONAVIRUS WITH ANTENATAL ATTACHMENT

Nazlı Baltacı¹, Emine Koç², Emel Odabaşoğlu³

Aim: The present study aims to find out fear of coronavirus and antenatal attachment levels of pregnant women and the relationship between these.

Methods: This descriptive study was conducted with 210 healthy pregnant women admitted to Obstetrics and Gynaecology Polyclinics of a hospital in Black Sea Region of Turkey. The data were collected with "Introductory Information Form", "Fear of COVID-19 Scale (FCS)" and "Maternal Antenatal Attachment Scale (MAAS)".

Results: Mean FCS score of pregnant women was found as $19,39 \pm 6,82$, while their mean MAAS score was found as $74,57 \pm 8,31$. The difference between pregnant women's fear of coming to hospital for pregnancy follow-up/care and worrying about their/their baby's health during the pandemic period and their FCS scores was significant ($p=0,012$; $p=0,001$, respectively). The difference between pregnant women's planning/wanting pregnancy and referring to health institution regularly for pregnancy follow-up/care and their MAAS scores was significant ($p=0,032$; $p=0,003$, respectively). A very weak and positive significant correlation was found between pregnant women's FCS scores and the factor of time spent on attachment ($r=0,192$, $p=0,005$).

Conclusions: It was found in the study that the time pregnant women spent on antenatal attachment increased as their Coronavirus fears increased.

Keywords: Attachment, COVID-19, fear, pregnancy, prenatal care.

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USE OF WEARABLE TECHNOLOGY IN MANAGEMENT OF CHRONIC DISEASE AND NURSING

Tuğba Solmaz¹

Chronic disease is defined as a health problem that affects the whole life of individuals, progresses slowly and requires long-term treatment. Many methods are used in the management of chronic diseases. One of these methods is wearable technologies, which have been increasingly used recently and facilitate treatment.

Wearable technology; It is defined as electronic devices that can be attached to the body and placed in clothes or accessories. These technological products, which include many products, including watches, wristbands and various clothing items; while providing users with the opportunity to control and manage their own health, it also offers health institutions the opportunity to improve their services and increase their efficiency. It is stated that thanks to these technological products, it will be possible to monitor physiological data for a long time, to diagnose chronic diseases such as cardiovascular diseases, diabetes and obesity in the early period, and to develop emergency treatments for diseases. With the widespread use of wearable technology, it will be easier for individuals to control their own health status without going to a health institution, and it will be ensured that they protect their health by applying the recommendations of the systems. Thus, unnecessary expenditures in terms of both time and health services will be prevented.

These developments in health technology also provide positive contributions to nursing care. It is thought that the development of these technological tools within the scope of professional nursing care practices and their adaptation to the whole society will reduce deaths due to chronic diseases and make important contributions to health promotion within the scope of sustainable development goals.

Keywords: Chronic disease, wearable technology, nursing, healthcare

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THE IMPORTANCE OF DETERMINING THE LEVEL OF DISABILITY IN PATIENTS WITH AMIYOTROPHIC LATERAL SCLEROSIS

Deniz Kıran Taşer¹, Naile Alankaya²

Amyotrophic lateral sclerosis (ALS) is a neurodegenerative disease with fatal outcome affecting both upper and lower motor neurons. The disease has a chronic and rapidly progressive course, with an average survival of 3-5 years from the onset of symptoms. According to the degree and region of neuron involvement in ALS patients, it causes cumulative disability in many areas such as physical mobility, performing activities of daily living, eating, communication skills, breathing and emotional reactions. This may eventually result in death due to respiratory failure. Activities that show independence such as turning in bed, moving from sitting to standing position are very important components in terms of motility. It affects the quality of life and caretakers burden in patients who cannot fulfill these tasks without assistance. In addition to independence, decrease in motility can cause many symptoms such as sleep disorders, pain due to immobilization. For this reason, it is very important to provide physical mobility and to determine the level of physical disability of the patients. The purpose of this review is to emphasize the importance of determining the disability level of patients with amyotrophic lateral sclerosis.

This review has been prepared by scanning the literature on the subject. The Revised Amyotrophic Lateral Sclerosis Functional Rating Scale (ALSFRS-R) and the Rasch Overall ALS Disability Scale (ROADS) are used to assess functional competence. Shamshiri et al. (2016) showed that decline in physical function negatively affects patients' quality of life. Prell et al. (2019) indicated that physical health has an effect on psychological well-being. Determining the disability level of patients will enable patients to manage the process effectively. For this reason, increasing the number of studies on the subject will contribute to patients.

Keywords: Amyotrophic lateral sclerosis (ALS), disability, nursing

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CANCER SCREENING PROGRAMS AWARENESS AND PARTICIPATION STATUS OF UNIVERSITY STAFF

Gönül Yılmaz Dünder¹, Büşra Dağcı Günel²,

Aim: This study was conducted to determine the awareness and participation of university staff in cancer screening programs.

Methods: It was conducted in a descriptive type at a university in Balıkesir between June 2021 and March 2022. The population of the research consisted of 545 administrative and academic staff working at the university. The sample number was calculated as 210 according to the sample selection of known universe. The sample of the study consisted of 223 individuals who accepted to participate in the study and met the inclusion criteria. As a data collection tool, a structured information form prepared by the researchers in line with the literature was used. SPSS-23 program was used in the analysis of the data. In the evaluation of the data; frequency, percentage, mean, standard deviation and chi-square test were used.

Results: A total of 223 university personnel, 60.5% male and 39.5% female, participated in the study. 65.5% of the participants in the study stated that cancer is preventable. Of the participants 62.3% consider themselves to be at moderate risk for catching cancer. It was determined that 79.8% of the participants had heard of cancer screening programs, but 15.2% participated in screening programs. Of the participants, 86.5% stated that they had knowledge about breast cancer, 55.9% colon cancer and 47.7% cervical cancer screening. Of the participants, 73.4% knew that mammography, 65.3% breast examination, 56.3% colonoscopy, 49.52% pap-smear were one of the cancer screening tests.

Conclusion: Cancer is a leading cause of death worldwide. Identifying cancer at an early stage increases the likelihood of responsiveness to treatment and results in higher survival, less morbidity, and a lower cost of treatment. For this reason, it should be ensured that the level of knowledge and participation in early diagnosis and screening programs is at the highest level.

Keywords: Cancer, cancer screening, awareness, early diagnosis

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EXPRESSED EMOTION, TREATMENT ADHERENCE AND PERCEIVED SOCIAL SUPPORT IN SCHIZOPHRENIA

Münire Temel¹, Elmas Beyazyüz², Murat Beyazyüz³

Aim: The aim of this study was to examine the relationship between the expressed emotion of the family members of patients with schizophrenia and the treatment adherence and perceived social support of the patients.

Methods: Data were obtained from 26 schizophrenia patients and 26 family members who applied to the psychiatry outpatient clinic between October 2019 and January 2020. Patient and Family Member Identification Form, Expressed Emotion Scale, Multidimensional Perceived Social Support Scale and Medication Adherence Rating Scale were used to collect data.

Results: Expressed emotion mean scores of family members were 7.76 ± 2.91 for criticism and hostility, 8.26 ± 2.44 for emotional over involvement and 16.03 ± 3.72 for total expressed emotion score. The mean social support score of the patients was 20.19 ± 6.23 for family support, 8.57 ± 6.01 for friend support, 11.23 ± 8.23 for special someone support, and 40.00 ± 15.92 for total social support. The mean score of treatment adherence of the patients was 6.38 ± 2.40 . There was a positive relationship between treatment adherence and social support ($r=0.405$; $p=0.026$). There was a difference between the mean emotional over involvement score according to the gender of the family member ($Z=-2.246$; $p=0.025$). According to the marital status of the family member, there was a difference between the mean score of special someone support ($Z=-2.108$; $p=0.036$) and the mean score of total expressed emotion ($Z=-2.183$; $p=0.029$). There was a difference between the mean family support scores according to the number of people living with the patient ($Z=-2.131$; $p=0.033$). There was a difference between the mean emotional over involvement score according to the time spent with the patient during the day ($p=0.008$; $Z=-2.632$).

Conclusions: The treatment adherence of the patients was low. The patients perceived the most social support from the family. As social support increased, the patient's treatment adherence also increased. The number of family members and their marital status are related to the perception of social support. The marital status, gender, and time spent with the patient of the family member are related to the expressed emotion.

Keywords: Expressed emotion, family, schizophrenia, social support, treatment adherence

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NON-PHARMACOLOGICAL INTERVENTIONS FOR CONSTIPATION IN ELDERLY INDIVIDUALS

Büşra Dağcı Günel¹, Yeter Kitiş²

Aim: This review was made to examine non-pharmacological interventions for elderly individuals with constipation problems.

Methods: Literature search was done in Google Academic and Science Direct databases using the keywords "elderly", "constipation", "older adults" and "nursing". Articles published between 2018-2022, which included elderly individuals, included at least one intervention, were planned as randomized controlled, and whose full text was available were reviewed. A total of 10 publications that met the inclusion criteria were included in the study.

Results: Constipation is a chronic bowel disease with an incidence of more than 50% in the elderly. It has been reported that long-term use of pharmacologically used laxatives in case of constipation may have serious side effects such as irritation, diarrhea, fluid-electrolyte imbalance, cramping, bloating, nausea, dehydration and fecal incontinence. Considering all these risks, non-pharmacological methods gain importance in the fight against constipation in elderly individuals. Reflexology, abdominal massage, probiotic capsules, Golghand, Psyllium powder, guar gum, patient education, Tong Bian decoction, fennel and rose containing herbal formula interventions have been found to be effective in combating constipation. However, in the systematic review of studies evaluating the effect of non-pharmacological methods on constipation, it was determined that there were problems regarding the internal validity of the studies, and that there was a need for randomized controlled studies with high internal validity and well-reported, where non-pharmacological methods were applied alone.

Conclusion: Focusing on pharmacological management in the resolution of constipation in the elderly may also lead to various side effects in elderly individuals with common polydrug use. Instead, it may be useful to turn to non-pharmacological solutions, including lifestyle changes. Prevention of constipation and using non-drug constipation prevention methods for nurses caring for elderly individuals and conducting randomized controlled studies with high internal validity should be a priority for nurse researchers.

Keywords: Older adults, constipation, nursing, non-pharmacological

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EXPOSURE TO ERGONOMIC RISKS IN NURSE

Sevil Olğun¹, Özlem Korkaya²

Ergonomics considers the physical, physiological, biomechanical and psychological characteristics of the human; It is the design of the workplace, equipment, machinery, equipment, product, environment, and system in accordance with the employee by optimizing the effectiveness and efficiency of business systems. Ergonomic risk factors are workplace conditions that can cause wear, tear, and injuries to the body. These; repetition, inversion, vigorous movement, static position, direct pressure, vibration, extreme temperature, noise, and work stress. Ergonomic risk factors are one of the most important risks affecting employee health and patient safety, especially in hospitals. Nurses are the health professionals who interact the most with patients in their professional practices. They are affected by the environment and medical equipment while meeting the care needs of patients. Nurses are exposed to risk factors in their work environment, such as biomechanics (practices requiring physical strength, reverse movements and postures), environmental (workplace layout), psychosocial (work pressure, low autonomy and competitiveness) and organizational factors (low number of nurses, shift work and medical equipment shortage). Musculoskeletal system problems, physical complaints such as pain, injury, varicose veins, and personal problems such as stress and fatigue are common in nurses. The strain on the physical capacity of nurses leads to a decrease in the quality of life and care and affects patient safety. Providing and adopting ergonomic conditions for nurses to provide a more effective service; ergonomic risks should be evaluated, ways of protection should be determined and implemented and risk factors should be reduced. Measures taken in health institutions to reduce ergonomic risks should be evaluated in three categories. These; are engineering controls, administrative controls, and behavioral or business practices controls.

Keywords: Nurse, hospital, ergonomic risk, exposure

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ANXIETY LEVELS AND COPING ATTITUDES OF INDIVIDUALS DURING THE COVID-19 PANDEMIC

Ali Unal¹, Seda Kırız², Zehra Unal³

Aim: This study aims to examine the anxiety levels and coping attitudes of individuals during the Covid-19 pandemic.

Methods: It was aimed to reach the whole universe without choosing a sample in this study. The sample of this cross-sectional study consisted of 657 people between the ages of 18-65 having agreed to participate in the study in the province of Çorum. The data were collected with Descriptive Information Form, State-Trait Anxiety Scale, and the Scale of Coping Strategies - COPE inventory. In the evaluation of the data, descriptive statistics, t test, ANOVA and correlation analyzes were performed. $P<0.05$ was considered statistically significant.

Results: A statistically significant difference ($p<0.05$) between the State-Trait Anxiety (STAI-S) mean scores according to the individuals' age, education level, place of residence, people they live with, presence of people in the risk group living in the same house, level of knowledge about COVID-19, diagnosis of COVID-19 in themselves and in their families, presence of a diagnosed psychiatric illness and use of psychiatric drugs. It was determined that the individuals participating in the study had a total score of 70.55 ± 8.66 (lowest: 41, highest: 105) on the Scale of Coping Strategies COPE inventory.

Conclusion: In order to minimize the negative effects of COVID-19 on the psychosocial health of individuals, it is recommended to increase the preventive measures and support services for the mental health of individuals.

Keywords: Coping, Covid-19, anxiety, pandemic.

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ATTITUDES OF HEALTHCARE PROFESSIONALS REGARDING GENDER ROLES

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Aim: This research was conducted in a descriptive type in order to examine the attitudes of health professionals towards gender roles.

Methods: The universe of the research consisted of healthcare professionals working in hospitals. Sample selection was not made, and it was aimed to reach the maximum number of health workers. The sample of the study consisted of 343 health workers who voluntarily agreed to participate in the study. The data were collected through Google Forms between October-November 2021 by making an announcement on the online platform. The "Informed Form" with 7 questions prepared by the researchers and the "Gender Roles Attitude Scale" (GRAS) were used to collect the data. Descriptive statistics, t-test for independent groups, One-Way Analysis of Variance were used in the evaluation of the data.

Results: Of the healthcare professionals, 68.22% are women, 67.63% are single, 80.18% of the married ones have their spouses working, 65.01% are undergraduate graduates, 50.73% were born in the province, It was determined that 67.93% of them lived in the province, 37.03% of them did not meet their income-expenses, 67.64% of them were nurses and 71.14% of them chose their profession willingly. The total mean score of the "Gender Roles Attitude Scale (TCRTÖ)" of healthcare workers was calculated as 98.01 ± 11.16 . "Gender Roles Attitude Scale" total score averages were found to be statistically significantly higher among male healthcare professionals than female healthcare professionals, married versus single, undergraduate students compared to others, and nurses compared to doctors, laboratories, and speech and language therapists ($p < 0,05$).

Conclusions: It was determined that health workers had an egalitarian gender role attitude. It was determined that attitudes towards gender roles were affected by gender, marital status, educational status, and economic status, and nurses' attitudes towards gender roles were higher than those of other healthcare team members.

Keywords: Health workers, gender, equality.

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INVESTIGATION OF NURSES' ADMINISTRATION FOR SUBCUTAN LOW MOLECULAR WEIGHT HEPARIN INJECTION PROCESS

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Aim: This descriptive study was conducted to observe the behavior of nurses regarding subcutaneous low molecular weight heparin (LMWH) administration.

Methods: The population of the study consisted of 57 nurses working in the orthopedics, neurology and neurosurgery clinics of a public hospital in Istanbul, where subcutaneous LMWH injection is frequently applied. It was included in the whole universe, and the sample consisted of 33 who voluntarily agreed to participate. The data were collected with a six-question "Personal Information Form" to determine the introductory characteristics of nurses, and an "Observation Form" based on the process steps of the subcutaneous LMWH injection method developed using the literature. In order to evaluate the nurses' ability to perform critical steps for subcutaneous LMWH injection, the results of three observations of the nurses were grouped. According to this grouping, those who performed the skill in each processing step in all three observations and those who performed the skill in two of the three observations were in the "observed" group. On the other hand, those who did not perform the skill in each processing step in all three observations and those who did not perform the skill in two of the three observations were included in the "not observed" group. Numbers, percentages and mean were used in the evaluation of the data.

Results: When the nurses' ability to perform the critical steps for subcutaneous LMWH injection was examined, it was found that the skills were mostly not at the desired level. In particular, explaining the procedure to the patient (30.3%), choosing the appropriate injection site (24.3%), waiting for the applied antiseptic solution to dry (15.1%), continuing to grasp the tissue after the needle is inserted (39.4%), slowing the drug It was determined that nurses were inadequate in critical steps such as giving the medicine (39.4%) and waiting for a short time (approximately 10 seconds) after the drug was given (30.3%).

Conclusions: It was determined that the skills of nurses to apply critical steps for subcutaneous LMWH injection were mostly not at the desired level. The results of this study revealed the necessity of conducting in-service training on subcutaneous low molecular weight heparin applications in health institutions in line with the current literature and ensuring its continuity. It is recommended to increase nurses' in-service training on subcutaneous LMWH injection.

Keywords: Nursing, nursing skills, subcutaneous heparin injection

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EFFECT OF INTERMITTENT OR CONTINUOUS SUBGLOTTIC ASPIRATION ON THE PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: The aim of the study was to determine the preventive effect of intermittent or continuous subglottic aspiration on the development of Ventilator-Associated Pneumonia (VAP) by meta-analysis.

Methods: In this study, the English literature was systematically searched using the keywords “continuous subglottic suctioning OR subglottic secretion OR subglottic drainage AND ventilator AND pneumonia OR VAP and randomized controlled trial” through Google Scholar, PUBMED, WOS, and Cochrane until September September 30, 2022. Scanning and data extraction were performed in accordance with PRISMA and PCOS. Randomized controlled trials (RCTs) were included.

Results: In intermittent subglottic aspiration (ISA), a total of 18 studies were included in the analysis. The observed risk differences ranged from -0.3333 to 0.2333, with the majority of estimates being negative (72%). The estimated average risk difference based on the random-effects model was $\hat{\mu} = -0.0846$ (95% CI: -0.1341 to -0.0351). According to the Q-test, the true outcomes appear to be heterogeneous (Q (17) = 37.4648, p = 0.0029, $\tau^2 = 0.0057$, $I^2 = 56.2798\%$). A 95% prediction interval for the true outcomes is given by -0.2410 to 0.0718. Neither the rank correlation nor the regression test indicated any funnel plot asymmetry (p = 0.9395 and p = 0.9280, respectively). In continuous subglottic aspiration (CSA), a total of 17 studies were included in the analysis. The observed risk differences ranged from -0.6026 to 0.1700, with the majority of estimates being negative (82%). The estimated average risk difference based on the random-effects model was $\hat{\mu} = -0.0542$ (95% CI: -0.1057 to -0.0027). The regression test indicated funnel plot asymmetry (p = 0.0013) but not the rank correlation test (p = 0.9677).

Conclusions: In the study, it was concluded that both intermittent and continuous subglottic aspiration were effective in preventing VAP. In addition, CSA was more effective than ISA in preventing VAP.

Keywords: Ventilator-Associated Pneumonia, intermittent, continuous subglottic aspiration

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INVESTIGATION OF NURSING THESES ON PHYSICAL RESTRAINT PRACTICE IN TURKEY

Mahinur Durmuş İskender¹

Aim: This research was conducted to examine postgraduate nursing theses that include physical restraint practices in Turkey.

Methods: In this descriptive study, theses were reached by scanning the database of the Higher Education Council (YÖK) National Thesis Center. The universe of the research is the theses on physical fixation in Turkey, and the sample is the postgraduate theses on physical fixation in Turkey, which were made between 2002 and 2022 in the field of nursing and are open to access. Ethics committee approval is not required as studies with access permission are included in the evaluation. In the selection of the sample, the "purposive sampling" method was preferred. The search was conducted between 20-27 October 2022 with the keywords "physical restraint" and "physical restraint" in Turkish. Permitted and approved doctoral and master's theses were scanned. At the end of the screening, 32 theses made between 2002-2022 in the Department of Nursing of the Institute of Health Sciences were determined. Six theses that did not meet the inclusion criteria were excluded from the study. In the analysis of the data, year, thesis type, subject, university and pattern variables were analyzed as frequency.

Results: It was seen that 25 of the theses were done at the master's level and 1 of them was at the doctoral level. It has been determined that the first thesis examining the physical fixation application was made in 2002, and the majority (n=20) were made in the last five years. In the examination of the graduate theses, it was determined that 11.5% of the studies were semi-experimental and mixed method studies, and 88.5% were descriptive.

Conclusion: As a result of the research, the theses on the physical fixation application in Turkey have increased in recent years, but they are insufficient in number; It is thought that the increase in randomized controlled studies on the subject will shed light on other studies.

Keywords: Physical restraint, physical fixation, nursing, thesis.

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SURGICAL TREATMENT AND NURSING CARE OF PRESSURE ULCERS

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Pressure ulcers are injuries to the skin or soft tissue caused by pressure, with or without rupture, usually occurring on bony protruding areas of the body. Many external and internal factors play a role in the formation of pressure ulcers, but all of them cause pressure ulcers by creating ischemia and necrosis. Patients with neurological diseases, cardiovascular disease, long-term exposure to anesthesia, dehydration, malnutrition and surgical intervention are in the risk group for pressure ulcers.

Pressure ulcers are defined as the third most costly health problem after cancer and cardiovascular diseases. It is stated that if left untreated, it can cause fatal complications. The prevalence of pressure ulcers is 4-38% in intensive care units, 4.7-31.2% in hospital clinics, 4.6-20.7% in nursing homes, and 19% in home environments. Treatment of pressure ulcers is complex as there is no specific treatment modality or algorithm. The basic approach in the treatment is to reduce the pressure applied in the lesion area, to minimize the contact of the ulcer with a hard surface, to reduce the humidity and to apply aseptic technique as much as possible. Treatment options vary according to the stage/grade of the pressure ulcer and what the treatment goal is (reduction of moisture, removal of necrotic tissue, bacteremia control). Surgical intervention for pressure sores is usually performed in III, where conservative treatment methods are insufficient. and IV. stage is preferred in non-healing wounds. Nurses play an important role in the evaluation and management of pressure ulcers as health professionals who spend the most time with the patient. This review examines nursing care in the surgical treatment of pressure ulcers.

Keywords: Pressure ulcer, surgical treatment, nursing care

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COLOSTOMY MANAGEMENT IN THE ADULT PATIENT

Esra Azum¹, Aylin Aydın Sayılan²

Fecal incontinence refers to involuntary leakage of stool, irrespective of the form or consistency. One preferred therapeutic method in these individuals is ostomy of the bowel. The term 'ostomy' derives from a Greek word meaning 'mouth' or 'opening,' and ostomy of the bowel refers to temporary or permanent attachment of the bowel to the body surface. The purpose of this review study is to discuss colostomy management in adult patients in the light of guideline recommendations and to create awareness among health care professionals.

Ostomy affects the individual's entire life. Whether temporary or permanent, an individual undergoing ostomy surgery is exposed to numerous difficulties and lifestyle changes. In particular, individuals may experience several problems in adaptation in preparation for surgery and afterward. At the same time, men and women, patients are reported to be capable of experiencing anxiety, fear, and depression. Education in the pre- and postoperative periods and during discharge, stoma and bagging system evaluation, preservation of stomal skin health, patient nutrition, family participation in care, and the management of complications are of great importance in these individuals. Individuals may experience shame, particularly due to odor, gas, and stool leakage, especially when stoma care is not properly managed, and this can lead to social isolation and reduce quality of life. Ostomy nurses need to predict the complications that patients may experience, provide an appropriate care plan, and support the patient both physiologically and psychologically.

In the light of the above information, adherence to current guideline recommendations is of great importance in determining the patient's and the family's requirements and in the provision and maintenance of standard care.

Keywords: Fecal, incontinence, ostomy, management

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PSYCHOLOGICAL EFFECTS OF COVID-19 PANDEMIC ON NURSES

Ezgi İşıtmez¹, Aysun Babacan Gümüş²

Aim: The aim of this paper is to identify the psychological effects of COVID-19 pandemic on nurses.

Methods: The descriptive study was carried out in Dr. Feriha Öz Emergency Hospital after obtaining permission from the ethics committee and the institution. 258 nurses who gave consent participated in the study. Data were collected by online survey method by applying Personal Information Form, Symptom Checklist (SCL-90-R) and COVID-19 Fear Scale between December 2020 and June 2021. SPSS 25.0 program was used in the analysis of the data.

Results: In the COVID-19 pandemic, 53.1% of the nurses had a high level of psychological symptoms. The nurses' levels of somatization, interpersonal sensitivity, anxiety, phobic anxiety, paranoid thought, obsessive-compulsive, and depression symptoms were found to be high. Marital status, education, income, working time, losing a relative, receiving psychological support, being COVID (+), resignation thought, and working experience in a pandemic/epidemic psychological symptom levels showed significant differences ($p<0,05$). The mean score of the Nurses' Fear of COVID-19 Scale was determined as 20.92 ± 6.03 . According to marital status, income, psychological support and psychiatric diagnosis, bereavement, being COVID (+), working experience in pandemic/epidemic, and resignation thought, the levels of fear of COVID-19 of nurses differed significantly ($p<0,05$). A significant and positive relationship was found between fear of COVID-19 and psychological symptom levels. The strongest association was between fear of COVID-19 with phobic anxiety and depressive symptom level.

Conclusion: Considering the effective factors, it was determined that nurses with risky characteristics needed psychological, social, social and administrative support. It was recommended that managers take protective and supportive measures to protect and strengthen the mental health of nurses.

Keywords: COVID-19 Pandemic, nurse, psychological effects, psychological symptom, fear

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INVESTIGATION OF THE INTERRUPTION MANAGEMENT OF NURSES DURING THE DRUG PREPARATION AND ADMINISTRATION PROCESS

Sedef Melek¹, Selma Atay²

Nursing practices, especially drug practices, require high mental concentration, and interruptions during the application directly affect the performance of nurses and lead to medication administration errors. In addition, interruptions affect nurses critical thinking and decision-making process, putting patient safety at risk. This research was conducted to investigate the interruption management experienced by nurses in the process of drug preparation and administration. Most of the interruptions are due to non-urgent, secondary causes. These unnecessary interruptions reduce productivity, cause time loss, and financial loss, and even put the lives of patients at risk due to medication errors. Therefore interruption management is of great importance. Through the interventions applied, the attention of the nurses during the treatment is prevented from being interrupted by external factors. In the interruption management during the drug preparation and administration processes, it was found that the interruption was reduced by wearing a vest with the words "do not disturb", hanging warning signs in the treatment room and nurse counters, informing health care professionals, and hanging posters in hospital corridors on this subject. It is stated that medication errors and financial losses can be reduced with interruption management. Although there is limited number of studies on interruption management, it is emphasized that there is a decrease in the rate of interruptions following the implementation of the interventions. While there are studies conducted in different country samples in the international literature on this subject, the number of studies in Turkey is limited. It may be recommended to increase national studies on this issue and to conduct studies on interruption management in nursing practices.

Keywords: Interruption management, drug administration, nursing

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THE USE OF COMPLEMENTARY AND ALTERNATIVE TREATMENT METHODS IN INDIVIDUALS WITH BREAST CANCER: AN EXAMINATION OF THE LITERATURE

Nuray Uslu¹, Aylın Aydın Sayılan²

Cancer is a major problem in human life. Complementary and alternative medicine (CAM) is becoming increasingly important in coping with this problem, particularly in the treatment of breast cancer, with its high global prevalence.

The purpose of this review study is to investigate the use of CAM in patients with breast cancer, to describe the preparates and treatments employed, and to determine the reasons for use, sources of information, and individual perceptions.

Our examination of the literature revealed that patients with breast cancer employ CAM at different stages of their treatment in order to enhance the body's resistance to cancer. Plants and animal foods were employed in the treatment contents. Patients most frequently used vitamin and mineral preparates, plants such as mistletoe and nettle, and honey. Other therapeutic methods applied included relaxation exercises, massage, aromatic oils, prayer, acupuncture, listening to music, yoga, and Reiki. Methods such as massage and aromatic oils were preferred by younger age groups.

The most important reasons for patients employing these methods were malaise/fatigue, pain, nausea-vomiting, and insomnia. Patients stated that the alternative methods they used facilitated coping with treatment, gave them hope, and enhanced their individual perceptions and quality of life. In addition, patients with breast cancer generally applied CAM methods based on information from friends.

In the light of this information, patients with breast cancer felt better with supportive therapies in addition to medical treatments, and therefore employed alternative therapies as quality of life-enhancing treatments. However, it is most important to emphasize that patients must inform their physicians of all alternative methods employed.

Keywords: Breast, cancer, pain, alternative treatment

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INVESTIGATION OF THE RELATIONSHIP BETWEEN THE FALL EXPERIENCE AND THE BEHAVIORS OF FALLING IN ELDERLY PEOPLE LIVING IN NURSING HOME

Deniz Ezgi Bitek¹, Filiz Dilek²

Aim: This study was planned to examine the relationship between the fall experience and fall behaviors of elderly individuals.

Methods: This research, which was planned as a descriptive and sectional study, was conducted in two nursing homes in Kırklareli province, between September 2019 and November 2019, with 55 volunteer elderly individuals. Data was collected by using a personal information form prepared by the researchers and the Falls Behavioural Scale (FaB) for the Older Person. Percentage, mean, Cronbach's alpha coefficient, Mann Whitney U and Kruskal Wallis tests were used to analyze the data.

Results: The mean age of the participants in the study was 75.05 ± 7.45 . The Cronbach's alpha coefficient of the scale was found as $\alpha = .83$. Falling Behaviour in Older People Scale total score of elderly people was found 2.83 ± 0.44 . While the highest score of the scale sub-dimensions was cognitive adaptation with 3.09 ± 0.61 and pace with 3.09 ± 0.87 , the lowest average score was obtained from the sub-dimension of practicality with 2.35 ± 0.72 . According to the sociodemographic characteristics of the elderly, there was no statistically significant difference between the mean scores of the Fall Behaviors in the Elderly.

Conclusions: It was determined that the falling behaviors of the elderly individuals living in the nursing home were high and the tendency of falling behaviors in the elderly individuals was cognitive adaptation and pace. There was no statistically significant relationship between the sociodemographic characteristics of the elderly and their falling behaviors. In order to prevent falls, necessary environmental arrangements should be made in the living area of the elderly person and the elderly at risk of falling should be evaluated periodically.

Keywords: Falling; geriatrics; nursing; nursing home; fall behavior

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HOW WILL METAVERSE IMPACT NURSING EDUCATION? SECOND LIFE AND VIRTUAL REALITY EXAMPLE

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The need to train nurses who are prepared for possible problems, who are competent and experts in their fields, and who provide quality patient care services, is increasing day by day due to reasons such as digitalization, pandemic, educational expectations of the new generation, and the importance of educating health professionals. Therefore, the importance of metaverse technologies integrated with theoretical education has also increased. In recent years, metaverse technologies such as Second Life and virtual reality have attracted the attention of educators and academics as educational tools for nursing education and practice.

This study was planned as a compilation study to evaluate the usage areas and potential of metaverse technologies such as Second Life and virtual reality in nursing education.

Easy integration of virtual environments into education, dynamic, immersive, and variable features help students gain teamwork, cooperation, clinical reasoning, and professional skills. Virtual reality is effectively used in nursing education to develop patient-nurse communication skills, drug administration, and teaching anatomical information to students. Second Life applications, on the other hand, offer various training opportunities such as courses offered with PowerPoint, vocational seminars, continuing education sessions, and professional development activities. It is understood that metaverse technologies increase cooperation, motivation, and performance, reduce practical errors and provide self-confidence through the desired skills as they provide nursing students with skills such as leadership, critical thinking, therapeutic communication, teamwork adaptability, and conflict management.

It should be realized that metaverse technologies can lead to change in nursing education and practices, and also have an important role in raising competent, successful, and expert nurses of the future. It can be interpreted that there is a need for evidence-based research to identify the appropriate environments that best meet the educational needs of students and to define the necessary features of metaverse technologies facilitating education and competency assessment.

Keywords: Virtual environment, virtual reality, second life, metaverse, nursing education

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FEAR OF HYPOGLYCEMIA IN ADOLESCENTS WITH TYPE 1 DIABETES AND RELATED FACTORS

Serap Kaynak¹, Sibel Ergün²

Aim: The aim of this study was to determine the fear of low blood glucose levels in adolescents diagnosed with type 1 diabetes and the factors associated with it.

Methods: This cross-sectional study was performed in Balıkesir, April- June 2022. The study population consisted of 72 adolescents aged 11 to 17 years attending secondary and high schools. No sample size was calculated; the whole population was targeted to reach. Of them, 60 who were at school during the data collection period and accepted to participate in the study were included in the study. The data were collected by the researchers using the adolescent information form, Virginia Child/Teen Low Blood Sugar Scale.

Results: The mean age of the participants was 14.55±1.76 years. 61.7% of the participants were girls and 60.00% were attending secondary school. 40.0% had diabetes for 13 years or more, and all received diabetes education. 68.3% of the participants' mothers were housewives and 71.7% of the fathers were public servants. The mean total score of the participants included in the study was 39.55±7.60 on the University of Virginia Child/Adolescent Low Blood Glucose Scale (VLBSS). A comparison of the scale with the gender of the participants revealed that the mean total score of the scale was higher in girls and there was a statistically significant difference (t:2.342; p:0.023). It was determined that the mean total scores of those whose mothers were housewives, whose fathers were workers and whose fathers were primary school graduates were higher and there was a statistically significant difference (t:11.055; p:0,000, t:-2.078; p:0,042, t:2.604; p:0,012). (The p value of <0.05 was considered significant).

Conclusions: It was also found in this study that female adolescents with type 1 diabetes had a higher fear of hypoglycemia than male adolescents and family characteristics of adolescents affected their fear of hypoglycemia.

Keywords: Adolescent, diabetes, fear of hypoglycaemia.

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AN EXAMPLE OF A PROJECT FOR INDIVIDUALS WHO BENEFIT FROM HOME HEALTH AND CARE SERVICES IS THE "CARE SUPPORT PROJECT"

Mustafa Helvacı¹, Deniz Ezgi Bitek², Hülya Arıkan³, Ebru Dereli⁴

Aim; The aim of the study is to evaluate the status of elderly, disabled and bedridden patients who benefit from home care and home health services, to increase their quality of life, and to provide university students with the opportunity to apply the scientific knowledge they have acquired with social sensitivity and awareness of responsibility.

Methods; The study was conducted in Kırklareli province, between the dates of 18/04/2022 and 30/05/2022, in the nursing and elderly care program for the elderly, disabled, bedridden patients and their families, determined within the scope of the protocol by the Provincial Directorate of Family and Social Services and the Provincial Health Directorate. Visits were made by the students, care and education were given to those in need.

Results; In the study, a total of 292 home visits were made to 146 families. Of the patients visited, 91 (62.5%) were female, 55 (37.5%) were male, with a mean age of 65 years. 46.5% do not have any social security, 36.1% benefit from general health insurance, 45.8% have a regular salary, 19.4% have no income other than social assistance, 42.3% It has been reported that his care is covered by his children. When their levels of dependency was questioned, it was determined that 41.7% of them were semi-dependent and 70.8% of them used assistive devices. Initiatives carried out during the visits; informing the elderly, disabled, sick individuals and their caregivers about self-care and performing self-care practices, determining the risk of home accidents and falling and taking the necessary precautions.

Conclusions; As a result of the study, it was ensured that caregivers were informed and better quality care was provided to elderly, disabled and bedridden patients. In addition, it has been a meaningful experience for our students that will contribute to their professional life through professional work.

Keywords: Elderly, disabled, caregiver, in-home patient care.

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POSTOPERATIVE NURSING CARE OF PATIENT WITH MOYA MOYA DISEASE: CASE REPORT

Emine Koç¹, Zeynep Kızılcık Özkan², Figen Dığın³

Aim: Moya Moya disease (MMD); It is a cerebrovascular disease that progresses with occlusion or stenosis in the section between the anterior and middle cerebral arteries and the internal carotid arteries. The disease, which is rarely observed, often presents with bleeding in adults. Symptoms of diseases; headache, involuntary choreiform movements, seizures.

Methods: The aim of this study; to provide post-operative nursing care of a patient who underwent revascularization due to MMD.

Results: A 27-year-old female patient has a history of cardiac rheumatism, hypertension and hyperlipidemia. Postoperatively, the patient was transferred to the neurosurgery service with a foley catheter, a nasogastric tube (NGT) and central vascular catheter on the 16th day after a 15-day intensive care stay. The first mobilization of the patient was performed with a wheelchair (PO. 18th day) and his NGT was withdrawn and he started oral feeding (PO. 20th day).

Conclusions: The patient was evaluated according to the theory of activities of daily living (ADL), and 7 nursing diagnoses were made as risk of falling, deterioration in verbal communication, ineffective breathing pattern, change in nutritional pattern, self-care deficit, impaired physical mobility, risk of infection, and appropriate nursing care was given. The patient was evaluated individually with a holistic approach. Nursing care applied according to the ADL theory contributed to the patient's postoperative recovery. The patient continues to be hospitalized in the clinic due to antibiotic therapy and neurological function follow-up.

Keywords: Activities of daily living, nursing care, moro moro disease, neurosurgery

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SUBCUTANEOUS INFUSION TREATMENT

Sule Filem Kılınçarslan¹, Selma Atay²

Subcutaneous infusion therapy, which is also called hypodermoclysis (HDC), is a safe, easy-to-apply method with high patient compliance that can be used in cases where intravenous catheterization cannot be performed, especially in patients with long-term care. Hypodermoclysis is a way to provide fluid infusion through the subcutaneous route. This review aims to explain the hypodermoclysis technique, which has regained its former popularity in recent years, as well as its indications and contraindications, advantages, and disadvantages. As an alternative method of fluid delivery, the subcutaneous infusion was first used in 1865 to treat dehydration in patients. In clinical practice, it is used especially in the treatment of fluid loss in the elderly with mild-moderate dehydration, and in the replacement of drugs such as antibiotics, morphine, carbamazepines that can be administered subcutaneously. The most common places of placement include the abdomen, thighs, pectoral region in males, and the outer surface of the forearms. Subcutaneous fluids can be transmitted by gravity or an infusion pump. Subcutaneous infusion is simple, affordable, and may provide an alternative route of infusion for patients with difficult IV access. In addition to hospitals, it can be used at home, nursing homes, domiciliaries, and other settings where skilled nursing care is not available. The important advantage of subcutaneous infusion over IV infusion is increased patient mobility and comfort. It also reduces the risk of pressure sores and deep vein thrombosis. Based on these facts, hypodermoclysis can be a safe alternative to intravenous catheterization, especially in the prevention of dehydration, which is closely related to mortality and morbidity in the elderly population.

Keywords: Subcutaneous infusion, hydration, nursing

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NURSES'S PLANS RELATED TO RETIREMENT

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Aim: The aim of this study is to examine nurses's plans for retirement and the factors affecting it.

Methods: The research is in descriptive, cross-sectional and comparative design. A total of 262 nurses from all nurses working in Turkey, who agreed to participate in the study between May and October 2022, were included in the study. Data were collected with the Introductory Information Form and "The Process of Retirement Planning Scale-PRRePS". T Test, One-Way Anova Test, Kruskal Wallis Test, Mann Whitney U Test and Pearson Correlation analysis were used in the analysis of the data.

Results: Significant differences were found between the age, the number of people living at home, the total working time in the profession, way of working, choosing the profession willingly, presence of chronic diseases, health assesment score, coming of retirement age, remaining years of those who do not reach retirement age, finding retirement planning important, existence of a retirement plan and the sub-dimension scores of the retirement planning process scale. The majority of those who have reached retirement age and want to retire due to "burnout and the desire to spare time for themselves and family". Those who do not want to retire despite the reaching retirement age have mostly stated that "economic factors" are effective in this situation. Those who have a retirement plan mostly mark the options of "spending time with my family, traveling, resting and hobbies" and the concept of retirement mostly means "freedom, leisure time and family"

Conclusions: It is necessary to support nurses in retirement planning, to help them understand the importance of this issue, to take necessary precautions and to develop policies, to inform them about retirement planning, and to prevent the factors that hinder retirement planning.

Keywords: Retirement planning, pre-retirement planning, nursing, older nurses

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TRADITIONAL PRACTICES APPLIED IN POSTPARTUM PERIOD IN SELECTED RURAL AREAS ÇANAKKALE

Ayten Dinç¹

Aim: The postpartum period is noted for traditional practices related to rest, healing and the consumption of food and drinks, but a contemporary view of these practices is needed. The study was carried out in selected rural areas of Çanakkale to determine the traditional practices applied in postpartum period.

Methods: Women who gave birth at least once and living in some rural areas of Çanakkale constituted this research basis, in which a screening model was used. An interview form was prepared according to literature information and was conducted face-to-face (N=110). Data was analyzed by frequency distribution and with arithmetic average.

Results: The education of the women was 70% literate/primary school graduate, the mean age was 43.02±14.12, and the mean duration of marriage was 23.18±15.18. Some traditional practices such as trying to protect the mother from puerperal fever, the forty fever and ceasing to increase the produced milk or abounding, taking care of the postpartum woman, the time to have sexual intercourse after childbirth in rural areas especially in the first 40 days after delivery. In our culture, it is very important taht maternity rest for 40 days and not be left alone.

Conclusions: Traditional postpartum practices are exist in certain sections of the population. Midwives and nurses need to be aware of clients' culture and consider the extent to which professional care complements the mothers' traditional beliefs.

Keywords: Traditional practices, postpartum period, culture.

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HUMAN PAPILLOMA VIRUS SCREENING RESULTS FOR TURKISH WOMEN: A FAMILY HEALTH CENTER-BASED STUDY

Ayten Dinç¹ Hilal Tüzün²

Aim: Human papillomavirus (HPV), is a sexually transmitted virus that can cause genital, anal, oral and some parts of the body to form warts (condyloma) and cervical cancer. This study aims at investigating the women's level of knowledge about HPV, their behavior related to early diagnosis methods, and screening results.

Methods: This descriptive study was conducted with 350 women by face-to-face interview technique at Çanakkale a family health center between November 2018-September 2020, after obtaining the necessary ethical approval and institutional permission. The data were collected using the "Questionnaire Form" and "HPV screen test". A total of 120 women between the ages of 30-65 went to Cancer Early Diagnosis, Screening and Education Center (KETEM) for HPV screening test.

Results: The average age of the women was 45.7±10. It was determined that only 12.9% of the participants knew about HPV and 33.7% about cervical cancer screening tests. It was found that the educational and occupational status of women were effective in having knowledge about HPV and taking a screening test ($p<0,005$). It was determined that 34.3 % of the women had HPV screening tests. HPV DNA positivity was detected in 6.7% (8/120) of the samples. HPV type 16 (4.8%), HPV 35 (1.6%), HPV 59 (0.8%), HPV68 (0.8%) were detected of the samples, respectively.

Conclusion: HPV vaccination is not in the national immunization program in Turkey yet. however, HPV vaccines are available. Women's awareness of HPV infection prevention and screening test should be expanded by healthcare professionals with effective training programs.

Keywords: Human papillomavirus, Screening, Turkish women

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DETERMINING THE PERCEPTIONS OF NURSES WORKING IN INTENSIVE CARE UNIT ABOUT PATIENT PRIVACY

Sevil Olğun¹, Gülelgün Türk²

Aim: The research was conducted to determine the perceptions of nurses working in intensive care units regarding patient privacy.

Methods: A descriptive study was conducted on nurses (n=202) working in the intensive care unit of a university hospital between September - December 2020. “Nurse Identification Form” and “Patient Privacy Scale (PPS)” were used to collect data. “Statistical Package for Social Science 25.0” was used in the evaluation of the data, and in the analysis, the descriptive data were numbers, percentages, mean and standard deviation values. The conformity of the data to the normal distribution was calculated with the Shapiro-Wilk test, and the Kruskal-Wallis H test and Mann-Whitney U test were used for statistical analyses. The statistical significance level was accepted as $p<0.05$.

Results: The mean age of the nurses participating in the study was 27.50 ± 4.01 , most of them were female (78.2%), single (71.8%) and undergraduate (63.4%). 56.4% of the nurses work in internal intensive care units and 55.4% work as intensive care nurses for 1-4 years. Almost all of the nurses consider patient privacy as confidentiality of personal information (91.4%) and body confidentiality (92.4%). Those who think that patient privacy is violated in the intensive care unit where they work is 90.1%. The nurses' mean total score on PPS was 4.48 ± 0.53 , and there was a significant difference between their PPS scores according to their education level ($p<0.05$). There was no significant difference between the medians of PPS scores according to age, gender, marital status, working time as a nurse, and working time in the intensive care unit and intensive care unit ($p>0.05$).

Conclusions: It has been determined that the nurses working in the intensive care unit have a high perception of patient privacy and pay attention to patient privacy.

Keywords: Patient privacy, nurse, intensive care

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THE EFFECT OF THE BREAST CANCER RISK REDUCTION PROGRAM (BRCARRP) ON WOMEN WITH HIGH BREAST CANCER RISK IN TERMS OF THEIR PARTICIPATION IN SCREENING AND THEIR HEALTH BELIEFS AND BEHAVIOR: A STUDY PROTOCOL FOR A RANDOMIZED CONTROLLED TRIAL

Habibe Ozcelik¹, Sebahat Gozum¹

Aim: The purpose of this study was to create a study protocol for evaluating the effect of the Breast Cancer Risk Reduction Program (BrCaRRP) on the participation of women at risk in screening, and on their health beliefs and risk reduction behaviors.

Methods: The research was planned as a single site, single-blind randomized controlled experimental study with a parallel group. It was registered on <https://clinicaltrials.gov> (Trial number: NCT04304404). Participants will be assigned to intervention and control groups using the Stratified Permuted Block Randomization method. The BrCaRRP will be applied to the intervention group within the theoretical framework of the Health Belief Model (HBM) and the Health Promotion Model (HPM). BrCaRRP is a 12-week program that encompasses six meetings, where the first is a face-to-face, 60-minute session, and the others are held by phone at Weeks 2, 3, 6, 9 and 12. The interventions made according to HBM and HPM were categorized in line with the OMAHA system of classification (education, counseling, consultancy, case management and surveillance). Multidisciplinary experts calculated the Content Validity Index of BrCaRRP as being 0.954 (high); its Weighted Kappa statistic is 0.70 (high). The main outcome measures created in line with the hypotheses of the study were measuring participation in breast cancer screenings, sensitivity, health motivation, fear of breast cancer, health responsibility, healthy eating behaviors, monitoring physical action, and appropriate referrals to genetic counseling.

Results: The difference in the likelihood of participation in breast cancer screening between the BrCaRRP and control groups will be evaluated after the interventions. Findings will be presented in terms of our hypotheses.

Conclusions: BrCaRRP is a nurse-led program based on the HBM and the HPM. BrCaRRP has high content validity and inter-rater reliability.

Keywords: Relatives of women with breast cancer, breast cancer screening, health beliefs, health behaviors, genetic counseling.

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GUILLAIN BARRE SYNDROME: A GUIDE FOR NURSES

Burcu Sütcü¹

Guillain-Barre Syndrome (GBS) is a neuromuscular disease characterized by symmetrical weakness in the extremities and hyporeflexia or areflexia. The most common variants are acute inflammatory demyelinating polyneuropathy (AIDP) and acute motor axonal neuropathy (AMAN). It occurs with an annual incidence of 1.3 cases per 100,000 population in the world, and males are more affected than females. In this article, it was aimed to emphasize the importance of nursing care in the disease management of patients with GBS.

Symptoms can range from numbness and tingling with mild weakness to complete paralysis. There is progressive muscle weakness that usually begins in the lower extremities and progresses upwards within 24 to 72 hours. Sensory loss may also occur, but not as much as motor loss. Respiratory function may be affected and respiratory support may be required. Although pain is common, it may manifest as paresthesia, muscle aches, muscle cramps, and hyperesthesia (abnormal sensitivity to stimuli). The nurse, on the other hand, should monitor the increasing stroke progress; should carefully evaluate respiratory function; and vomiting status, cornea and swallowing reflexes should be evaluated closely. Arterial blood gases and oxygen ratios; should monitor for orthostatic hypotension and cardiac arrhythmia, which may indicate the degree of autonomic nervous system dysfunction. Complications such as respiratory muscle dysfunction, autonomic dysfunction, sepsis and embolism should be recognized early and managed effectively to ensure the patient's recovery. The nurse should also serve as a resource person for the patient and family regarding the disease process and course of the disease. Therefore, nurses need to have information about the basic pathophysiology of GBS, the stages, variants and uncertain clinical course of the disease.

By combining both physical and psychological care in a patient with Guillain-Barré syndrome, the nurse should adapt to the changing care plan accompanying this diagnosis. In this way, nurses can make a difference in the recovery of their patients by anticipating possible complications and meeting their special needs during the acute and convalescent phases of their illness.

Keywords: Guillain Barre syndrome, nursing care, treatment

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PHYSICAL THERAPY AND REHABILITATION AND NURSING STUDENTS' COMPLEMENTARY THERAPY ATTITUDES AND LEVEL OF USE

Burcu Genç Köse¹, Ayşe Gümüşler Başaran², Bahar Kefeli Çol³, Hilal Pekmezci⁴

Aim: The study was done to detect physical therapy and rehabilitation and nursing students' complementary therapy attitudes and level of use.

Methods: This descriptive and cross-sectional study was done with 446 students studying at the school of physical therapy and rehabilitation of a university and at the school of nursing of a faculty of health sciences. Data were collected using Information Request Form, Conventional and Complementary Medicine Attitude Scale and Scale for Attitudes towards Complementary and Alternative Medicine. The analyses were done using percentages, averages, standard deviation, Student-t, Mann Whitney U, One way Anova, Kruskal Wallis analysis, Scheffe post hoc test and Pearson correlation.

Results: 75.6% of the students was female and average age was 20.99 ± 1.58 . 77.6% did not hear about complementary therapy education, 95.5% did not use complementary therapy previously, education process of 89.7% did not cover complementary therapy, %73.3 stated that complementary therapy education should be given at schools, 74.2% wanted to use complementary therapy but 94.2% told that Ministry of Health did not know about complementary therapy regulations. Participants' average total score of Scale for Attitudes towards Complementary and Alternative Medicine was 25.44 ± 8.953 and the most used approach was nutrition/feeding approach (13.61 ± 4.106). Participants' average total score of Conventional and Complementary Medicine Attitude Scale was 111.29 ± 16.092 and the highest subscale was holistic congruence with health (46.48 ± 8.665). As a result of correlation analysis; there was a positive but weak correlation between age and mental reaction ($r = -.143$).

Conclusions: The students were of the opinion that complementary therapy methods should be used for patients and they wanted to use these methods after graduation. It may be suggested that complementary therapy methods be used as a subject during educational process.

Keywords: Nurse, physiotherapist, students, complementary therapy.

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SELF-CARE BEHAVIORS OF PATIENTS WITH HYPERTENSION

Aysenur Yasar¹, Hatice Karabuga Yakar²

Aim: Hypertension disease causes cardiovascular system diseases and increased morbidity and mortality rates. Self-care behavior changes should be done in order to keep hypertension under control and to increase the quality of life of individuals. The aim of this study is to determine the self-care behaviors of patients who has hypertension.

Methods: The sample of the study has been consisted of 250 patients having previous diagnosis of hypertension who applied to the emergency department and cardiology clinic of a state hospital in Istanbul. Data were collected by using 'Patient Diagnosis Form' and 'The Behavioral Scale of Hypertension Self-Care Profile (HBP-SCP)' is a 4-point likert-type scale consisted of 20 items. The highest total score might be 80, the lowest score might be 20. An increase in the total score on the scale represents a better self-care implementation. Statistical significance was accepted as $p < 0,05$.

Results: The mean age of the patients participating in the study was $62,8 \pm 8,1$. The majority of the patients were women (67,2%). The average of systolic blood pressure value of the patients was 112 ± 50 ; diastolic blood pressure value was 66 ± 30 . The average of self-care behavior scores of patients was $54,8 \pm 5,4$, the reliability index of the scale was 0,79. It was observed that the self-care behavior average scores differed according to age, marital status of patients, working condition, the people they live with, the presence of cholesterol, regular use of medications, regular health check-ups, keeping blood pressure under control, frequency of doctor visits, thinking the benefits of smoking-alcohol cessation in disease management.

Conclusions: It was found that the self-care behavior scores of the patients who have hypertension were on medium level. Continuity of self-care behaviors is very important in the control of blood pressure and in the management of complications related to hypertension. Nurses should ensure the continuity of patient follow-up.

Keywords: Hypertension, self-care, nursing

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RETROSPECTIVE EVALUATION OF PAIN LEVEL IN PATIENTS WITH LUNG LOBECTOMY

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Aim: The aim of this study is to retrospectively evaluate the pain level in patients who underwent lobectomy to treat lung diseases.

Methods: In the study, the records of 124 patients who underwent lobectomy surgery in a university hospital thoracic surgery clinic between 2018 and 2021 were reviewed retrospectively by the researchers. Patient data were evaluated using the patient identification form and visual analog scale (VAS). Necessary written permissions were obtained from the Scientific Research Ethics Committee of Trakya University Faculty of Medicine (TÜTF-BAEK 2021/284) and the institution where the study was conducted.

Results: On the first follow-up after admission to the clinic after surgery, the mean VAS score was 7.44 ± 1.81 , 6.73 ± 1.72 in the 1st hour, and 2.43 ± 1.31 in the 24th hour. When pain levels are examined according to descriptive features, It was found that the mean VAS scores recorded in the 1st hour postoperatively were statistically different between male and female patients, and between smokers and non-smokers ($t=-2.669$, $p=.009$, and $t=2.009$, $p=.047$, respectively).

Conclusion: It was found that most patients who underwent lobectomy to treat lung diseases had severe / serious pain levels in the early postoperative period. It was determined that male patients had higher pain levels than female patients and smokers compared with non-smokers. It is recommended that surgical nurses evaluate pain levels by considering individual risk factors and provide pain management by using pharmacological and non-pharmacological methods effectively.

Keywords: Lung lobectomy, nursing, pain, thoracic surgery.

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A NEW CONCEPT IN HEALTH SCIENCES: GREEN TRANSFORMATIONAL LEADERSHIP

Gonca Aktay¹, Zeynep Ersay Önal², Selen Tekin³

Wastes of various kinds that threaten human and environmental health have exponentially become widespread in the healthcare industry with the increased/expanded use of healthcare services. Despite some initiatives, such as the “green hospital” project, the desired goal of waste reduction cannot be achieved due to a lack of education, lack of information, and inadequacy of management strategies. Successful medical waste management can only be achieved thanks to fruitful management strategies and guidance by a competent leader. The contemporary ecological problems seem to mandate many organizations to consider environmental awareness among their objectives and responsibilities, which has given birth to the concept of “green transformational leadership.” Green transformational leadership aims to maintain human/public health by ensuring a clean environment through promoted employee green behaviors. The present review study is designed to define green transformational leadership and explore its impacts on medical waste management in a hospital.

Green transformational leadership is known to promote employees’ intrinsic motivation to exhibit green behaviors, as well as to influence their current green behaviors. Thus, this model attempts to popularize employee green behaviors and supports the initiatives for adopting voluntary green behaviors. Thanks to the model’s potent outcomes, healthcare professionals are expected to assume active roles in medical waste management.

The appropriate management of medical waste does matter to be able to prevent the global climate crisis and recover its damages. This process, where leaders undertake key roles, would only be practical with the help of green behaviors. The findings of this study addressing green transformational leadership would steer further environmental, educational, and health research for the effective management of the incoming climate crisis.

Keywords: Green transformational, employee green behavior, health, medical waste management, environment

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SUPPORT NEEDS OF CANCER PATIENTS' CARERS AND ITS RELATIONSHIP WITH THE PATIENT'S AGE AND CANCER TYPE

İrem Gül¹, İsmail Toygar², Öznur Usta Yeşilbalkan³

Aim: This study aimed to determine the carer support need of cancer patients and its relationship with the patient's age (<65 years versus ≥65 years) and cancer type (hematological malignancy versus solid tumors).

Methods: This descriptive and comparative study was carried out between July 2021-October 2022 with 120 carers. Sixty of the cancer patients were <65 years while the other sixty ≥65 years. Sixty of the cancer patients had hematological malignancy while the other sixty had solid tumors. The Carer Support Need Assessment Tool and carer identification form were used for data collection. Data were analyzed with SPSS 26.0 package program. All approvals from the ethical committee, hospital, patients, and caregivers were obtained.

Results: It was found that carers of 65 years and older patients need more support in providing personal care for their relatives ($p=0.003$) while the carers of patients under 65 years old need practical help in the home or elsewhere ($p=0.012$). Carers of hematological malignancy patients need more support in understanding their relative's illness ($p=0.036$), managing the relative's symptoms, including giving medicines ($p=0.037$), financial, legal and work issues ($p=0.008$), knowing who to contact if you are concerned about their relative ($p=0.033$), talking with their relative about his or her illness ($p=0.049$), and getting a break from caring overnight ($p=0.006$).

Conclusions: Carer support needs were affected by the patient's age and cancer type. Nurses need to be aware of these different carer needs according to the patient's age and cancer type to meet the carer's needs.

Keywords: Carer, support, need, age, cancer, nursing

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SURGICAL FEAR LEVELS IN PATIENTS WAITING FOR ONCOLOGICAL AND NONONCOLOGICAL SURGERY

Zeynep Kızılcık Özkan¹, Figen Dığın², Görkem Çay³

Aim: It is known that patients who will undergo surgery experience fear. It has been determined that patients who will undergo oncological surgery are worried. The aim of this study is to determine the fear of surgery in patients who will undergo oncological or nononcological surgery.

Methods: This descriptive and cross-sectional study was carried out with the participation of 108 volunteer patients, who were admitted to the general surgery service of a university hospital, who would undergo 54 oncological and 54 nononcological abdominal surgeries. TÜTF noninvasive ethics committee approval and institutional permission were obtained to carry out the study. The patients participating in the study were informed about the study and their written consent for participation was obtained. Data were collected using the Patient Information Form and the Surgical Fear Scale. Effect size=0.4, with 95% confidence level and 80% power ratio, with the G * Power 3.1.9.4 program, the minimum number of people to be sampled is 54 patients in the oncologic surgery group and 54 patients in the nononcologic surgery group.

Results: It was determined that the mean age of the patients participating in the study was 59.5±12.4 years, and 62.0% were male. It was determined that the total mean score of the patients on the Surgical Fear Scale was 22.8±19.2, the mean of the short-term fears sub-dimension score was 12.1±9.6, and the mean of the long-term fears sub-dimension was 10.7±10.9. It was found that there was a statistically significant difference between the patients who will undergo oncological surgery compared to the patients who will undergo non-oncologic surgery, between the mean scores of the Surgical Fear Scale total, short-term fears sub-dimension and long-term fears sub-dimension.

Conclusions: It was determined that patients who will undergo oncologic surgery experience more fear of surgery than patients who will undergo nononcologic surgery.

Keywords: Fear of surgery, nurse, nononcologic, oncologic

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MANAGEMENT OF THIRST IN THE INTENSIVE CARE UNIT

Zeynep Kızılcık Özkan¹, Figen Dığın ², Gökben Osmanlı Karbuz³

Thirst is characterized by dry mouth and a desire to drink water. Thirst is frequently observed in intensive care patients (76%). Intensive care patients reported that they felt helpless in the face of thirst. Among the causes of thirst There are situations such as the use of diuretics, high serum sodium doses, restriction of oral intake, and treatment with a mask. The aim of this review is to present the attempts to quench thirst in patients treated in the intensive care unit, in the light of the literature.

Cold water sprays or swabs, menthol lip moisturizer, and use of humidification alone or in combination as thirst pack interventions (bundle—iced water swabs, ice cold water sprays, and menthol moisturizer) are among the methods used in thirst management. In another study, a package containing vitamin C spray, mint mouthwash and lip moisturizer was used. In another study, a spray-based oropharyngeal humidification program was effective in relieving thirst in post-cardiac surgery intensive care patients. In studies, thirst intensity, thirst distress, and dry mouth are evaluated after interventions for thirst.

Based on the information in the literature, the following can be said. Nurses should frequently evaluate and treat thirst and dry mouth together. Since the risks of sprays such as aspiration and allergies are low, they can be used safely in thirst management.

Keywords: Intensive care unit, Nursing care, Thirst

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MATERIAL SORT IN THE POSTPARTUM PERIOD AND EVIDENCE-BASED NURSING APPROACHES

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In the postpartum period, women experience significant physical, social and emotional changes. It is important for the health of the mother and the baby to evaluate the patient in terms of medical complications, breastfeeding, postpartum depression, sexual life and contraception during the controls during this period. Psychological adaptation processes that can be seen in this period are classified as maternal sadness, postpartum depression and postpartum psychosis. Maternity blues is the mildest form of mood disorders seen in puerperium. Maternal sadness, which usually occurs in the first 10 days after birth, 3-5th. It is defined as anxiety, irritability, rapid changes in mood, difficulty concentrating, hypersensitivity to criticism, feelings of loss and grief, which peak on days Although it is a temporary picture, it affects the social and family life of the mother. Healthcare professionals are expected to provide and administer safe and effective care. Evidence-based nursing practices are important in terms of outcomes such as improving the quality of care and care outcomes, making a difference in clinical practices and patient care outcomes, standardizing care, and increasing nurse satisfaction. The purpose of this review; The aim of this study is to provide an overview of the evidence-based practices related to the care given by nurses and midwives regarding the maternity blues, one of the problems that may be encountered in the early postpartum period. In this context, nursing care interventions to be applied in the postpartum period prevent risky situations by providing physical care for the mother and baby, help and guide the family to adapt to the new situation physically and psychosocially, and help develop positive health behaviors. For postpartum psychosocial assessment, it recommends that women's emotional well-being, presence of family/social support, and coping strategies be questioned by health professionals at each postpartum contact. Evidence has been reported that professional postpartum home visits, postpartum telephone support, and interpersonal psychotherapy methods are beneficial in preventing postpartum depression, especially in mothers at risk. As a result, it has been determined that the applications in the reviewed sources have a low level of evidence, although the degree of recommendation is high.

Keywords: Postpartum period, motherhood sadness, evidence-based practices

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EXAMINATION OF THESES ON BREASTFEEDING EDUCATION IN THE FIELD OF MIDWIFERY AND NURSING IN TURKEY

Gamze Diker¹, Berna Köktürk Dalcı²

Aim: Breast milk is known as the best food source for infants with its high bioavailability, being natural and easy to digest. Breast milk is a physiological food that meets all the needs of newborns for six months. Studies have revealed that breastfeeding has many positive effects not only in terms of infant health but also in terms of maternal health. There are many study results stressing the importance of breastfeeding education programs for effective breastfeeding, and the initiation of education in the antenatal period is one of the most important points that studies focus on. Therefore, this review was conducted to examine midwifery and nursing theses on breastfeeding education in Turkey.

Methods: The national thesis center was entered with the keyword ‘breastfeeding education,’ and a total of 29 theses were reached. It was found that 9 theses were written in different disciplines, and a total of 20 theses were examined.

Results: It was seen that 90% of the 20 theses reviewed were performed using the face-to-face training technique. It was determined that 55% of the training was conducted in the postpartum period. While 70% of the training was provided only to mothers, 25% covered both mothers and fathers. In all of the studies reviewed, it was observed that breastfeeding education affected variables such as breastfeeding duration, self-efficacy, breastfeeding attitude, and mother-infant attachment.

Conclusion: As a result, it was seen that the training methods used in the studies were traditional methods, and most were performed in the postpartum period. With the increase in the use of developing technologies by individuals and the effectiveness of breastfeeding education, it was predicted that education programs using mobile learning methods could be effective in reaching more parents in the antenatal period.

Keywords: Breastfeeding, education, nursing

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THE EFFECT OF NURSES' PERCEPTION OF EMPLOYEE HEALTH AND SAFETY CULTURE ON INTENTION TO LEAVE

Fulya Demir¹, Yıldı Arzu Aba²

Aim: The purpose of this study was to examine the impact of nurses' perceptions of employee health and safety culture on turnover intention.

Methods: The descriptive and relationship-seeking study design was carried out with the participation of 551 nurses. The data were gathered using a diagnostic form that included the participants' descriptive information and occupational characteristics, as well as the "Employee Health and Safety Culture Scale" and the "Intention to Leave Scale." In the evaluation of data, descriptive statistical methods (mean, standard deviation, median, frequency, percentage, minimum, maximum), Shapiro-Wilk test, Student-t test, Mann-Whitney U test, one-way analysis of variance, Dunn-Bonferroni test, Spearman correlation, and Linear regression analysis were used.

Results: It was determined that the total mean score of the employee health and safety culture scale of the nurses participating in the study was high (3.72 ± 0.59), and the total mean score of the intention to leave scale was moderate (2.57 ± 0.98). It was discovered that perception levels of employee health and safety increased with age. The male gender, the 18-25 age range, and single nurses were shown to have a high intention to leave. The intention of nurses to leave their jobs is not affected by their educational level.

Conclusions: It was determined that there was a weakly statistically significant negative correlation between the participants' total mean scores on the Intention to Leave Scale and their total mean scores on the sub-dimensions of the Employee Health and Safety Culture Scale. It was determined that the perception of employee health and safety culture in nurses affected the intention to leave the job by 10.8%, while the variables of Management Policies, Prevention of Violence and Food Safety affected the intention to leave the job by 9.6%.

Keywords: Employee health and safety; nurse; safety culture; intention to leave.

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NUTRITIONAL LITERACY AND FEAR OF HYPOGLYCEMIA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

Sinem Günaydın¹, Naile Alankaya²

Diabetes is a chronic metabolic disorder characterized by disruptions in carbohydrate, fat and protein metabolism due to insulin deficiency or problems in insulin use. In this review, it was aimed to discuss the literature on nutritional literacy and fear of hypoglycemia in individuals with type 2 diabetes. Hypoglycemia, one of the acute complications of diabetes, is defined as a decrease in plasma glucose level below the normal value. Accidental or intentional use of high doses of insulin or taking high doses of oral antidiabetic drugs, malnutrition and non-compliance with the timing of eating are predisposing factors for the occurrence of hypoglycemia. Due to the fact that hypoglycemia is life-threatening, individuals with diabetes experience fear of hypoglycemia. Nutritional literacy is the ability of individuals to understand and critically evaluate various information related to food, nutrients, food groups and nutrition, and to apply this information by making the right decisions for healthy food selection and consumption. The management of treatment and nutrition is gaining importance in controlling hypoglycemia. When the studies on hypoglycemia fear and nutritional literacy were examined, it was found that 27.7% of individuals with type 2 diabetes treated with insulin had a fear of hypoglycemia in a study conducted by Sakane et al. In his review study conducted by Erol in 2012, it was stated that diabetics with high fear of hypoglycemia frequently snacked to prevent hypoglycemia, restricted some daily activities, and consciously kept blood glucose levels high. In their study, Li et al. showed that nutrition education in adults with diabetes between the ages of 50-65 increases the quality of diet, physical activity level of people and positively affects blood sugar. Drug therapy in patients with diabetes and physical activity, as well as the monitoring of the programme proposed nutrition, and medication for each patient's eating habits, reducing the need for the control of diabetes, diabetic structure, complications, age, intensity of physical activity and nutrition programs based on the gender should be set.

Keywords: Diabetes mellitus, nutrition, hypoglycemia

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INVESTIGATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND PERCEIVED SOCIAL SUPPORT LEVELS IN PATIENTS DIAGNOSED WITH DEPRESSIVE DISORDER

Hatice Polat¹

Aim: This study aims to investigate the relationship between psychological well-being and perceived social support levels in patients diagnosed with depressive disorder.

Methods: The study is a descriptive and correlational type of research. The research was carried out in the psychiatry outpatient clinic of a Training and Research Hospital in the Eastern Anatolia region of Turkey. The study population consisted of outpatients who presented with the diagnosis of Depressive Disorder according to the DSM-5 diagnosis and classification system. In the study, no sample selection was performed, and the sample consisted of 75 patients who met the research inclusion criteria within the study population and agreed to participate in the study. The data collection process of the study is ongoing.

Results: The average score of the Multidimensional Scale of Perceived Social Support (MSPSS) was 52.06 ± 18.35 , the average score of the family sub-scale was 16.98 ± 7.03 , the average score of the friends sub-scale was 17.44 ± 8.14 , the average score of the special ones sub-scale was 17.64 ± 8.63 , and the total score average of the Flourishing Scale (FS) was 37.13 ± 11.32 . When the total and sub-scale scores of the MSPSS and FS scales of the patients were compared, a significant positive relationship was found between the total score of the MSPSS and the total and all sub-scale scores of the FS scale ($p < 0.01$).

Conclusions: It can be stated that patients participating in our study have moderate psychological well-being and perceived total social support levels. It was found that there was a significant and moderate relationship between the psychological well-being of the patients and the social support levels they perceived ($r = 0.678$, $p < 0.01$). It can be stated that the psychological well-being of patients increases as their social support levels increase.

Keywords: Depressive disorder, psychological well-being, social support

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COVID-19 and TELEHEALTH

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Aim: This review has been prepared to examine the increasing usage areas of tele-health and COVID 19 process.

Methods: Literature search was conducted using the keywords "tele-health", "COVID 19" and "pandemic" in Google Academic, Pubmed and Science Direct databases. The articles published between 2019-2022 and whose full text can be accessed were reviewed.

Results: The COVID-19 pandemic has turned into a nightmare all over the world, including in developed countries. Measures taken due to the pandemic (staying at home, social distance); It has caused disruption of many routine and emergency health services such as outpatient treatments, emergency room visits, hospitalizations, surgeries, chronic disease consultations, cancer screenings. Tele-health is "the use of electronic information and telecommunication technologies to support and promote long-distance clinical health services, patient and professional health education, public health and health administration". Telehealth services while they are used in the provision of services in the fields of diagnosis, treatment, prevention, education and research, their use for tele-consulting, remote diagnosis and follow-up and treatment has also become widespread. Telehealth services provide the opportunity to maintain access and continuity of medical care, while also reducing the potential for community and hospital spread of the virus. It is possible to see the approach of providing support with telehealth services in the fight against COVID-19 in China in many countries around the world. During the COVID-19 epidemic in many countries, the risk of COVID-19 has been tried to be calculated using various parameters by monitoring the daily life activities of the person with tele-health applications. Examples of these are CovidWatch (USA), Kwarantana Dommowa (Poland), TraceTogether (Singapore), HaMagen (Israel), PeduliLindungi (Indonesia) applications.

Conclusion: Despite all the negative aspects of the COVID-19 pandemic, it is thought to contribute to the development and expansion of tele-health services.

Keywords: Telehealth, COVID-19, pandemic

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ATTITUDES OF HYPERTENSION PATIENTS TOWARDS TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE TREATMENT

Nuriye Durmuş¹, Naile Alankaya²

In the twentieth century, there has been an increase in the number of individuals with chronic diseases, especially cardiovascular diseases, in developed and developing countries. Hypertension is one of the most common chronic diseases among cardiovascular diseases. Hypertension is defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg in adults over 18 years of age with repeated clinical measurements. Regular use of drugs is very important in the prevention of hypertension and accompanying cardiovascular risks. This review study was conducted to reveal the attitudes of hypertension patients towards traditional, alternative and complementary health practices they use.

Compliance with treatment is the patient's taking medications regularly, making lifestyle changes and synthesizing them with clinical recommendations. One of the most important factors in not being able to control blood pressure is the non-compliance of hypertensive patients with drug therapy. Nurses are the health professionals who have the most communication with hypertension patients at all stages of health institutions, and nurses have a very important role in the long-term management of hypertension and maintaining the patient's compliance with the treatment process. A healthcare professional who is knowledgeable about Traditional, Complementary and Alternative Treatment (GETAT) methods can observe the patient for any side effects during patient follow-up and prevent the patient from being harmed. In a study with 100 hypertensive patients, 64% of the participants used the GETAT method and 90.6% of these patients thought it worked. In another study, 64.8% of 290 hypertension patients thought that these treatments were beneficial. It is very important for the nurse to have knowledge about GETAT methods in terms of counseling the patient.

Keywords: Nursing, hypertension, traditional complementary and alternative treatment

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EXAMINATION OF COPING WITH STRESS AND PSYCHOLOGICAL RESILIENCE IN FAMILY MEMBERS WHO HAVE PATIENTS IN CORONARY INTENSIVE CARE UNIT

Sema Yılmaz¹, Nevin Onan²

Aim: This study was carried out to evaluate the methods of coping with stress and psychological resilience of family members who are sick in coronary intensive care unit.

Methods: Between December 2021 and March 2022, the study was conducted with a total of 205 relatives of patients who had patients in the Coronary Intensive Care Unit of Karabuk University Training and Research Hospital. Data were collected using the Participant Information Form, the Stress Coping Styles Scale (SCSS), and the Adult Psychological Resilience Scale (PRS), were evaluated Mann Whitney U, Kruskal Wallis test and Bonferonni correction and Spearman correlation analysis.

Results: It was determined that %50.7 of the patient's relatives were women, %72.7 were married. %40.5 of the participants had a chronic disease, %83.4 had no intensive care experience, %50.2 of them partially managed this process effectively. Self-confident approach, optimistic approach, seeking social support, helpless approach, submissive approach were found to be the sub-dimension scores of SCSS, respectively. There was a significant difference between the groups in the median scores of the SBCT sub-dimensions according to gender, educational status, occupation, and chronic disease. It was determined that the PRS total score of the patient's relatives was 3.83 ± 0.54 , the highest score was family cohesion (4.20 ± 0.74), and the lowest was the perception of the future (2.31 ± 0.44). There is a positive correlation between PRS total score and sub-dimensions and Self-Confident Approach, Optimistic Approach and Social Support-Seeking Approach; It was determined that there was a moderately significant negative relationship between the Helpless Approach and Submissive Approach sub-dimensions ($p < 0.001$).

Conclusions: It was determined that the relatives of the patients were able to cope with stress effectively, and that psychological resilience increased effective coping. It is recommended that the necessary interventions be made so that the relatives of the patients can cope with stress more effectively.

Keywords: Coronary intensive care, relatives of patients, coping with stress, psychological resilience

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CRAB BASKET SYNDROME PERCEPTIONS OF ACADEMIC NURSES

Nazlıhan Efe¹, Serap Altuntaş²

Aim: The research was carried out to determine the perceptions of the Crab Basket Syndrome of academic nurses.

Methods: The research was carried out in descriptive, cross-sectional and comparative design. The population of the research consisted of academic nurses working in higher education institutions that provide undergraduate education in nursing all over Turkey. In the study, all academics were tried to be reached by not using the sample selection method, and a total of 335 academic nurses were reached. No attempt was made to the participants in the study, and the research data were collected by online survey method. In the collection of research data, "Personal Information Form" and "Crab Basket Syndrome Scale" were used and the data were analyzed using appropriate statistical programs.

Results: The academic nurses who participated in the study had the "Crab Basket Scale" general dimension (3.09 ± 0.74) and its sub-dimensions, "Cognitive Components Dimension (2.86 ± 0.41)," Emotional Components Dimension (3.29 ± 1.02), scored above the average on the "Behavioral Dimension (3.09 ± 1.05). The total reliability score of the crab basket syndrome scale was found to be 0.932 and it was found to have an acceptable degree of reliability.

Conclusions: The starting point of this study is that academic environments are environments with intense competition and ambition for success. As a result of the study planned to measure the perception of the crab basket syndrome of the academicians; a significant relationship was found between the perception of crab basket syndrome and features such as age, type of university, department in the institution, title, whether there is an administrative task, and the nature of the administrative task, if any, and the desire to leave the job.

Keywords: Academician, nursing, crab basket syndrome

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INVESTIGATION OF CARE BURDEN AND BURNOUT STATUS OF CAREGIVERS WHOSE GIVING HOME CARE TO PATIENTS WITH CHRONIC DISEASE

Deniz Ezgi Bitek¹, Mustafa Helvacı², Hülya Arıkan³

Aim: This study was conducted to determine the caregiving burden and burnout levels of the caregivers whose giving home care to patients with chronic disease.

Methods: The cross-sectional and descriptive study was conducted between April 18, 2022 and May 30, 2022 with caregivers of 121 patients with chronic diseases who received care assistance from family and social services and were registered in home care services. Data was collected using a Personal Information Form, Zarit Burden Interview (ZBI) and Maslach Burnout Inventory (MBI). Data were evaluated with percentage distributions, t tests, Pearson correlation analyses and ANOVA tests.

Results: Mean age of the caregivers was 57.21±11.79. Most of them were females (81%), 45.5% of the caregivers were the children of the patients, and 75.2% of them had been providing care for more than one year. The mean Zarit Burden Interview score 32.44±16.05; the mean Maslach Burnout Inventory score of Emotional Exhaustion 6.77±6.08, the mean Depersonalization score 1.39±2.56 and the mean Personal Accomplishment score 17.38±5.54 were also estimated. We found a positive correlation between the increasing burden of caregivers with the subscales of Maslach Burnout Inventory Emotional Exhaustion and the Depersonalization. There was no significant relationship between the Personal Accomplishment subscale.

Conclusions: In the research, care burden and burnout were not found at high levels. However, it was determined that the burden of care affects the state of burnout. Caregivers should be evaluated by health personnel in terms of care burden and burnout, and plans should be made to provide the necessary support.

Keywords: Caregiver, burden, burnout, chronic disease, home care

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EFFECTS OF FAMILY MEDICINE PRACTICE ON NURSING SERVICES: LITERATURE REVIEW

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According to the Constitution of the Republic of Turkey, nurses; they are authorized health personnel who are responsible and authorized to apply the treatments given by the physician in writing, except for emergencies, to determine the health-related needs of the individual, family and society that can be met by nursing interventions in every environment, and to plan, implement, supervise and evaluate nursing care within the framework of the needs determined within the scope of the nursing diagnosis process. Within the scope of the Health Transformation Program, it was decided to switch to the Family Medicine practice due to reasons such as the inability of socialization to adequately respond to health services and a large group of patients who can be treated in primary care go to secondary and tertiary health institutions. With the entry into force in 2005 in Düzce, which is the capital city of Düzce, they started to work in family health centers under the name of family health personnel, together with other health personnel such as nurses, midwives and health officers. However, the education levels, educational contents, and professional duties, authorities and responsibilities of these health workers are not similar to each other. Nurses working as family health personnel are authorized to assist the polyclinic services, to ensure the coordination of the referred patients with the institution to which they are referred in the absence of a medical secretary, and to perform other duties assigned by the institution and the family physician; passive, dependent, and the physician's assistant. In addition, in the Law on the Socialization of Health Services, the services of pregnant follow-up, baby follow-up, immunization and home visits, which are among the duties of the nurse, have been completely transferred to the family physician. The purpose of this review is to reveal the current situation by examining the work of nurses in family health centers and to examine their duties, authorities and responsibilities in accordance with laws and regulations. As a result of the literature review, mainly nurses; The positive aspects of family medicine practice are that all members of the society are registered, the frequency of pregnancy, infant and child follow-up is increased, better communication is provided with the public, and as negative aspects, the excess workload, the deficiencies in the patient registration system, the inadequacy of preventive health services in practice, contracted health services. they were employed and called as family health personnel.

Keywords: Nurse, family medicine, family health personnel, nursing law, nursing regulation

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REFLECTIONS OF ROBOT NURSES ON THE NURSING PROFESSION

Bahar Kuleyin¹, Ayşe Çiçek Korkmaz²

New technologies such as artificial intelligence and robotic technology allow the development of the field of health and nursing. The status of these technologies in facilitating health services is highly debated. In this review, it is aimed to discuss the usage areas and application examples of robot nurses in nursing, the benefits of using robot nurses in nursing, and current information on ethical problems that may arise.

Artificial intelligence, which has been defined as a computational system that tries to imitate functions related to human intelligence in recent years, facilitates the collection, use and analysis of complex medical and health data in the field of health. In addition, machines and robots with deep cognitive abilities using artificial intelligence have also been developed. The developed robots have the ability to imitate the human brain and think like a human. For example, humanoid robots have provided convenience to health workers such as taking swab tests from people or giving drugs and food to patients due to problems such as insufficient number of personnel in health services and increased contamination, especially during the pandemic period. With the importance of humanoid robots during the pandemic period, robot nurses came to the fore once again and robot nurses with different functions began to be designed. Robot nurses developed in this period also perform positive nursing practices such as helping elderly individuals with loneliness and inactivity, applying their treatments, measuring vital signs and recording them in electronic systems. These robots can always have positive and negative effects on the nursing profession. Nurses have to make complex decisions about their patients many times during the day and they also benefit from the ethical codes of nursing while making these decisions. In addition, the nursing profession, by its nature, includes spiritual characteristics such as compassion, compassion and empathy. Robot nurses raise concerns about their ability to make ethically appropriate decisions in complex situations and provide spiritual care to patients.

It has been concluded that robots can be used to provide support to nurses in times of crisis such as pandemics and when they are needed more, to alleviate the workload of nurses, and to be used as an extension rather than a replacement for nurses.

Keywords: Nursing, robots, nurses, robotics

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A REVIEW ON ANXIETY AND QUALITY OF LIFE IN WOMEN WITH UTERINE FIBROIDS

Kübra Özdemir¹, Yıldı Arzu Aba²

Uterine fibroids (UF) are the most common benign gynecological tumor in women over 18 years of age and of reproductive age. Age at menarche, obesity, high blood pressure, family history of fibroids, and race are major risk factors for UF. Despite its benign nature, uterine fibroids are a chronic condition that has significant impacts women's lives. In addition to physical disorders in women, it also changes mental health and quality of life. In studies evaluating the effect of uterine bleeding and pelvic pain, known as the main symptoms in UF, on quality of life, the Uterine Fibroid Symptom and Quality of Life (UFS QOL) Scale, which was developed only for this condition, is commonly used. Adverse conditions that are common in women with UF, such as urinary and stress incontinence, affect the quality of life and its evaluation is of great importance for treatment. UFs are the most common reason women of reproductive age undergo surgery after cesarean section in the United States (USA). Anxiety in the preoperative period; Fear and anxiety about the outcome of the surgery, fear of death, dependency on others, changes in lifestyle, pain, and fear of anesthesia are common conditions. While the experience of UF triggers anxiety and psychological problems, high levels of anxiety trigger women's fears about fibroids. Our study aims to examine the studies evaluating fear/anxiety and quality of life in women with uterine fibroids and to bring together different studies assessing the causes of anxiety and fear in women. Providing counseling to women to relieve their worries and concerns and helping them understand the situation better will contribute to their quality of life during the treatment process.

Keywords: Uterine fibroid; anxiety; fear; quality of life

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THE EVALUATION OF THE STATUS RELATED TO IMMIGRATION AND WORKING LIFE OF THE NURSES WHO IMMIGRATED TO ABROAD AS VOCATIONAL

Işıl Duran¹, Serap Altuntaş²

Aim: The research was carried out in order to determine the status regarding vocational immigration and working life of the nurses who immigrated to abroad from Türkiye as vocational.

Methods: The research was carried out in descriptive and cross-sectional design. The population of the research consists of 130 nurses who migrated to different countries from Türkiye to work as nurse. Data were collected with an online questionnaire. Ethics committee approval was obtained for the research. The data were evaluated with statistical package programs.

Results: In the research, 72.3% of the nurses who immigrated to abroad were women, 38.5% were between the ages of 31-35, 58.5% were single, 72.3% had a bachelor's degree, 92.3% of them chose the nursing profession voluntarily, 30% of them have been doing the nursing profession for 11-16 years or more, 97.7% of them have been nursing in Türkiye. 63.8% of them worked in the private sector in Türkiye, 55.4% of them did not work in the desired unit in Türkiye, 54.6% of them were staff nurses in their last position in Türkiye, 21.3% of them last worked in the intensive care unit in Türkiye. , 48.5% of them were partially satisfied while doing their job in Türkiye, and 46.9% of them found a working environment in Türkiye partially in accordance with their career plan.

Conclusion: Among the reasons for the immigration of nurses who immigrated to abroad, there are factors such as insufficient wages, living and working conditions, economic conditions, career opportunities, and obtaining citizenship. Among the future goals of the immigrating nurses, it was concluded that they intend to work in the country they immigrated to for a while.

Keywords: Migration, professional migration, nursing migration

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DETERMINATION OF PROFESSIONAL BELONGING LEVEL AND AFFECTING FACTORS IN STUDENT AND WORKING MIDWIVES

Sefa Karaman¹, Ayça Şolt Kırca², Seçil Hür³

Aim: With this study, it is aimed to determine the professional belonging of midwives working with senior midwifery students at universities in Turkey.

Methods: In this descriptive and cross-sectional study, a sample of 174 senior midwifery students studying at undergraduate level and 171 working midwives with undergraduate degrees was formed. Data were collected through a descriptive questionnaire questioning socio-demographic and educational/professional information and the Midwifery Belonging Scale using a google questionnaire. Number percent distribution, chi-square analysis, Mann Whitney U test and Kruskal Wallis test were used to evaluate the data.

Results: It has been determined that student midwives have a higher tendency to do freelance midwifery and take part in the academy compared to working midwives ($p<0.05$). While the unit that student midwives plan to work after graduation is the delivery room, it has been determined that working midwives work in ASM/TSM units ($p<0.05$). It has been determined that the students' participation in certified education/congress, their participation in administrative duties and their membership to associations are at a low level ($p<0.05$). It has been determined that the total average score of the student midwives from the midwifery belonging scale is 93.18 ± 10.01 and that of the working midwives is 90.21 ± 13.18 and there was no difference between the groups ($p>0.05$).

Conclusions: Although there are some differences between students and working midwives in terms of professional views and characteristics, it has been determined that the professional belonging of midwifery students and working midwives is at a good level.

Keywords: Midwifery, midwifery students, professional belonging

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THE EFFECT OF MUSIC DURING NONSTRESS TEST ON MATERNAL AND FETAL HEALTH

Yasemin Sökmen¹, Resmiye Kaya Odabaş², Ayten Taşpınar³

It is very important to evaluate fetal health in the antenatal period, to identify fetal asphyxia in the early period and to prevent complications that may develop due to this. Because fetal death accounts for about half of perinatal death and approximately four million stillbirths occur in the world every year. While the stillbirth rate per 1000 live births in the Netherlands was 2.2, this rate was reported as 3.8 in Ireland, 36.0 in India and 88.7 in Iran. In our country, according to the 2018 data of the Turkey Demographic and Health Survey, the stillbirth rate in pregnancy was reported as 1% in the last five years. Therefore, fetal health should be evaluated in order to identify fetuses at risk of intrauterine death and to prevent perinatal morbidity and mortality. In the evaluation of fetal health; ultrasound, doppler ultrasound, biophysical profile, counting of fetal movements by the mother, contraction stress test and nonstress test are used. Nonstress testing is defined as the monitoring and evaluation of changes in fetal heart rate during spontaneous or evoked fetal movements. When the literature is examined, it is reported that music was used to treat diseases in Sumerian, Babylonian, Assyrian, Shamanic, Chinese, Ancient Egyptian and Greek civilizations, and today there are studies examining the effect of listening to music during nonstress testing on maternal and fetal health. When these studies were examined, it was reported that listening to music during the nonstress test had an effect on blood pressure, pulse rate, respiratory rate, saturation level and anxiety score of pregnant women. When the effect on fetal health was examined, it was stated that it was effective on basal fetal heart rate, variability, number of fetal movements, number of accelerations, number of decelerations and nonstress test duration. For this reason, it is recommended that midwives be encouraged to inform pregnant women about noninvasive, easy, side-effect-free and economical music performance and to apply it during the non-stress test.

Keywords: Fetal health, maternal health, midwife, music, nonstress test.

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NEGATIVE EFFECT OF CHILDREN VIDEOS SHARED IN FAMILY VLOGGING ON CHILDREN

Süreyya Sarvan¹

Aim: There has been a remarkable increase in the popularity of family vlog channels in recent years. Videos that demonstrate kids as the main stars have become a source of rising concern. The purpose of this study is to review the literature that analyzes the impact of family vlog channels involving kids on children.

Methods: In this study, the effects of the videos shared by parents with vlog channels on children were examined by evaluating the studies obtained from databases such as Academic Search Complete, Academic Search Ultimate, CINAHL Complete, Science Direct, MEDLINE, and Google Scholar.

Results: A vlog is a video log, which could cover all kinds of content. Family vloggers increase their follower count and earn money by sharing their own daily activities and often cute and funny videos of their children. Children have become the main source of income for most family vloggers. For video shoots, families ignore the privacy and permission of their children, making them perform for hours in front of the camera. Moreover, most family vlogs shoot videos of pranks they make to their children to attract the attention of their followers and increase the number of clicks. The potential of these posts to harm children and their emotional development and cause them to be exposed to bullying is ignored. Family vlogs that expose children to constant cameras can negatively affect their mental health and growth, making the kids vulnerable to problems such as identity crises, low self-esteem, living under forced conditions, and growing up according to the opinions of others. Moreover, it is presumed that these videos shared without the consent of children will cause unpredictable problems and bring the concept of online child labor to the fore in the future.

Conclusions: While family vlogging is an option to earn money or fame, parents should give priority to their child's safety and privacy. Videos shared to gain followers are likely to be abused on sites with vulgarity. This may result in a violation of children's rights and at the same time endanger them without their knowledge. It can be suggested that rules be set and implemented to prevent videos of babies and young children from being used in family vlog channels.

Keywords: Abuse, children, family vlog, child labor, mental health.

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EVALUATION OF GENITAL HYGIENE BEHAVIORS OF SECONDARY EDUCATION GIRLS: VIZE EXAMPLE.

Huriye Sena Kuruç¹, Nilgün Avcı²

Aim: This research was carried out in a descriptive type in order to determine and evaluate genital hygiene behaviors and orientations of secondary school female students who are in adolescence.

Methods: The research was carried out with students studying in high schools affiliated to the Ministry of National Education in the Vize district of Kırklareli. The sample of the study consisted of 194 female students who volunteered to participate in the study. Data were collected using face-to-face interview method in the spring semester between February and June 2022. “Personal Information Form” and “Genital Hygiene Behaviors Scale” prepared by the researchers were used to collect data. Kolmogorov Smirnov test, Mann Whitney U test, Kruskal-Wallis H test and Chi-Square test were used to evaluate the data.

Results: The mean age of the students participating in the study was 15.74 ± 1.1 , 88,1% lived with their mother and father, 67,5% did not receive information about genital care and hygiene, 92,3% used materials for genital cleaning, % It was determined that 79,9 of them thought that insufficient education on hygiene was given at school or in classes. The total mean score of the Genital Hygiene Behaviors Scale of the students was calculated as 44.60 ± 7.1 . It was determined that students living in the city center and the district had a higher rate of material use in cleaning the genital area than the students living in the village. Genital hygiene behaviors total and menstrual hygiene sub-dimension mean scores of students living with only mother or only father were found to be statistically significantly higher ($p < 0,05$).

Conclusions: It was determined that the general hygiene and menstrual hygiene habits of the students were affected by the education level of the mother, the level of family income and the person they lived with.

Keywords: Adolescent, hygiene, genital hygiene, behavior, nursing

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EXISTING ETHIC CODES IN MIDWIFERY AND NURSING WITHIN THE CONTEXT OF ETHICS-LAW-MORALITY-VALUE RELATIONSHIP: FROM THEORY TO PRACTICE

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Aim: In this research, it is aimed to give an ethical perspective to professionals in terms of path to be chosen in discussions about daily developments in field of medicine and especially medical developments that will come to the agenda in field of midwifery and nursing.

Methods: Ethics, which is the subject of human behavior, constitutes the basis of law, but the two concepts complement each other. In addition, it often determines the standards of proper and proper behavior adopted in the field of a profession. In this study, the rules of behavior in practical life, especially for applications in the field of health, the style of action of health workers in accordance with their internal values, were examined in this theoretical dimension. The regulatory effect of ethical codes related to this theoretical dimension in midwifery and nursing professional life in practice is listed as results.

Results: Midwifery and nursing ethical codes, which have evolved into various forms as we approach today, have been an important element that provides the autocontrol of the profession. They provide standards of behavior in practice of midwifery and nursing profession. At the same time, they help to reveal general attitude expected from health care professional. They define characteristics of a good midwife and nurse and shed light on minimum standards of these professions.

Conclusions: The existing ethical codes regarding minimum standards of midwifery and nursing professions describe the ideal health care professional. These are the standards that, those who demand health services and generally the public expect from midwives and nurses. They have function of disciplining when minimum standards of behavior are dropped. At the same time, they can be used by instructors for teaching students to explain this discipline's minimum nature in professional practice.

Keywords: Morality, ethic codes, midwifery, nursing, law.

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ABSTRACTS BOOK

NUTRITION AND DIETETICS ORAL PRESENTATION

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

THE EFFECTS OF SUGAR, CONSUMED WITH NUTRIENTS BY PREGNANT WOMEN, OVER BODY MASS INDEX AND GESTATIONAL DIABETES

Sedef Duran¹, Selin Başkurt²

Aim: In this study, it was the pleasure of enjoying the sugary education consumed by pregnant women with nutrition and dealing with gestational progress.

Methods: This study was determined as cross-sectional, descriptive and in 2018-2019. The study was conducted with 84 pregnant women who underwent a sugar loading test in a gynecology polyclinic of a private hospital in Edirne. The questionnaire was implemented by the researcher to investigate the demographic characteristics, food consumption records and anthropometric measurements of pregnant women. 50 g and 75 g glucose were routinely administered to pregnant women who were followed up at gestational week 24-28.

Results: Participating pregnant women are in the 24th \pm 28th gestational week and the median age was 29,51 \pm 4,87 years. In the study the weight gain of the pregnant women is average 13 \pm 8 lb and the rate of diagnosed with GDM is 27%. There is no significant relationship between the diagnosis of GDM according to pre-pregnancy BMI status of pregnant women ($p < 0,05$). Weight gain relative to the median total sugar intake (82.7g) of pregnant women compared, there is a significant difference ($p < 0,05$).

Conclusions: Unlike previous studies, this study There is no significant relationship between GDM diagnosis status and total sugar consumption. 98.8% of pregnant women have a daily fiber intake of >25 g and high fiber consumption It can help plasma glucose balance and also physical activity of pregnant women. The uncertainty in their status helps to explain their difference from other studies is happening.

Keywords: Gestational diabetes mellitus, obesity, pregnancy

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HEALTH COMING FROM POMEGRANATE

İrem Alaçık Develioğlu¹, Muteber Gizem Keser², Nurhan Ünüsan³

Pomegranate, *Punica granatum L.*, a member of the *Punicaceae* family, is an edible fruit known to be used for medicinal purposes from ancient times to the present day, just like many other plants. The roots, flowers, fruit, bark, aril (seed), and other parts of the pomegranate are actively used in the health sector. The aim of this current study is to evaluate the health effects of pomegranate, which can be consumed as a functional food from past to present, under different subtitles. Pomegranate and its by-products have features such as anti-bacterial, anti-oxidant, anti-cancer, anti-obesity, anti-neurodegenerative, anti-atherosclerotic, wound healing, and the interest in the medical use of pomegranate is increasing day by day. The phenolic substances such as flavonoids, polyphenols, ellagitannins (gallic acid, ellagic acid, punicalin, punicalagin, luteolin, quercetin, kaempferol, glycoside, pedunculagin) give this functionality to the pomegranate fruit. Thanks to these substances, pomegranate has effects such as reducing blood glucose levels, increasing apoptosis in cancer cells, reducing the levels of some blood fats such as low-density lipoprotein (LDL) and total cholesterol (TC) and waist circumference, reducing neuroinflammation, and increasing the antioxidant effect by reducing oxidative stress. It is still controversial whether the active substances in pomegranate cause drug interactions. It should be known that pomegranate and its derivatives may interact with drugs that inhibit angiotensin-converting enzyme (ACE), antihypertensives, carbamazepine, warfarin, rosuvastatin, and tolbutamide, and care should be taken.

To sum up, some bioactive substances, especially punicalagin and punicalin, found in different parts of the pomegranate, are the main factors that make the pomegranate so unique. Owing to the functions these substances bring to the fruit, pomegranate plays an active role in the protection and maintenance of health. It is recommended to include pomegranate in the daily diet.

Keywords: Functional food, health, nutrition, pomegranate.

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CAN VEGETARIAN AND VEGAN ATHLETES THRIVE ON A PLANT-BASED DIET?

Sedat Arslan¹

The nutritional needs of athletes vary from person to person, so each athlete's diet is customized. However, athletes with special conditions need to make more detailed nutritional arrangements and get more professional help. Vegetarian or vegan athletes take less protein, iron, and zinc-containing nutrients than omnivorous athletes. The most worrying issue in vegetarian and vegan athletes is low protein intake. It is recommended to include legumes in the diet for protein intake and to consume them frequently. In cases where protein is insufficient, plant-based protein supplements should be considered. In addition, supplements of nutrients such as iron, vitamin D, carnitine, taurine, and beta-alanine, which are also found in foods of animal origin, should be considered. Vegetarians can meet their increased protein needs by simply increasing the calories consumed. For example, an 80 kg athlete consuming 3660 kcal per day and a lacto-ovo-vegetarian can get 12.5% of their calories from protein on average, while a vegan can meet 11% of their daily energy needs from proteins. In other words, protein from a Lacto-Ovo vegetarian diet is 1.41 g per kg, and protein from a vegan diet is 1.2 g per kg. It is possible to increase these values significantly in a vegetarian or vegan diet by keeping the calories given constant, increasing the amount of legumes only, and reducing the amount of fruit and fat in the meals. According to the studies in the literature, there is no difference between the athletic performances of vegetarian/vegan athletes and omnivorous athletes. It is thought that vegans and vegetarians are more advantageous in terms of athletic performance because they take complex carbohydrates more often. However, there have been cases of insufficient intake of animal-derived protein and related micronutrients. For this, experts recommend nutritional supplements and ergogenic aids to these athletes when necessary.

Keywords: Athlete, vegan, vegetarian, herbal nutrition, sports nutrition

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EFFECT OF RESVERATROL ON CARDIOVASCULAR DISEASES

Ramazan Mert Atan¹, Beste Dablan², Sedat Arslan³

Cardiovascular diseases (CVDs) result from heart and blood vessels disorders. It is the leading cause of morbidity and mortality worldwide and includes hypertension, coronary heart disease, atherosclerosis, coronary artery disease, peripheral artery disease, cardiomyopathies and heart failure. Despite progress in diagnosing and treating these diseases, CVDs remain a severe public health problem. In recent years, research has focused on polyphenolic compounds thought to have therapeutic potential for CVDs. Resveratrol, one of these polyphenolic compounds, is thought to reduce the risk of CVDs due to its cardioprotective and vasoprotective properties. Resveratrol is produced by plants in response to stress, ultraviolet radiation, infection, and injury. The most important sources are grapes and products obtained from grapes such as hardaliye and red wine. It is also found in apples, raspberries, blueberries, and pistachios. Resveratrol exists in two isomers, both cis and trans. The trans form has higher biological activity compared to the cis form. Many mechanisms have been proposed for the protective effects of resveratrol on CVDs. It reduces the risk of CVDs by supporting endothelial functions, especially as a result of its anti-inflammatory and antioxidant properties. In addition, there are many studies showing that it inhibits LDL oxidation and increases the bioavailability of nitric oxide. Another of the most important effects of resveratrol is that it has the capacity to interact with many molecular targets. It stimulates the expression of sirtuin deacetylase genes, the most well-known of these. Although there are many scientific studies on the positive effects of resveratrol on CVDs, an appropriate dose has not been determined. However, high resveratrol intake is known to cause toxic effects. Therefore, more clinical research is needed to reveal the positive effects of resveratrol on CVDs.

Keywords: Resveratrol, cardiovascular diseases, antioxidant, anti-inflammatory.

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SUSTAINABLE AND HEALTHY EATING BEHAVIORS: IS SOCIAL MEDIA ADDICTION EFFECTIVE?

Özge Mengi Çelik¹

Aim: In this study, it was aimed to evaluate the relationship between sustainable and healthy eating behaviors and social media addiction in adults.

Methods: A web-based questionnaire was used as a data collection tool. Before the study, ethical approval was obtained. A total of 258 adults (198 females, 60 males) between the ages of 18-58 were included in the study. Demographic information, anthropometric measurements of individuals were questioned. Social media addiction was evaluated with the 'Social Media Addiction Scale-Adult Form (SMAS-AF)' and sustainable and healthy eating behaviors were evaluated with the 'Sustainable and Healthy Eating Behaviors Scale'.

Results: The mean age of the individuals was 28.1 ± 8.1 years, and the mean body mass index (BMI) was 23.6 ± 4.4 kg/m². 69.8% of the individuals stated that they follow the issues related to nutrition on social media tools. Dietitians (44.2%), athletes (23.3%) and doctors (16.3%) were the people who were followed the most in nutrition from social media. A statistically significant positive correlation was found between the SMAS-AF total score and the 'Sustainable and Healthy Eating Behaviors Scale' total score and the sub-factor scores of healthy and balanced nutrition, local food, low fat consumption and avoiding food waste ($p < 0.05$). There was a statistically significant negative correlation between the 'Sustainable and Healthy Eating Behaviors Scale' total score and sub-factor scores, and BMI ($p < 0.05$). A statistically significant positive correlation was found between the number of main meals and snacks and the healthy and balanced nutrition sub-factor score ($p < 0.05$). A statistically significant positive correlation was found between age and reducing meat consumption, avoiding food waste, and seasonal foods sub-factor scores ($p < 0.05$).

Conclusions: In this study, it was determined that as social media addiction increases, sustainable and healthy eating behaviors of individuals also increase. The correct and effective use of social media can positively affect individuals' nutritional behaviors.

Keywords: healthy eating behavior, sustainability, social media addiction, body mass index, age

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NUTRIENTS, DIETARY PATTERNS AND METABOLIC INFLAMMATION

Ramazan Mert Atan¹

Inflammation, a biological reaction to harmful stimuli, is a necessary immune system response to infection or trauma. The inflammatory response consists of two distinct phases. The first phase is the initiation of the inflammatory response. The second phase is the resolution of the inflammatory response. Homeostasis can occur when the initiation and resolution phases are balanced. Chronic low-grade inflammation occurs when the initiation phase is too strong or the resolution phase is too weak. Metabolic inflammation refers to chronic low-grade systemic inflammation in contrast to the innate immune system's classical transient and acute inflammatory responses. This situation is a common pathological finding of many metabolic diseases such as metabolic syndrome, non-alcoholic fatty liver disease, type 2 diabetes mellitus and cardiovascular diseases. Generally, chronic low-grade inflammation results from obesity-induced metabolic tissue dysfunction or the inability of immune cells to adequately ameliorate pro-inflammatory responses. Consequently, some dietary components such as omega-6/omega-3 ratio, saturated fatty acid and fiber are effective in metabolic inflammation. Recent research has highlighted the relationship between diet and metabolic inflammation by evaluating dietary patterns. The Mediterranean diet is one of these diet patterns. The Mediterranean diet is rich in antioxidants, trace elements, minerals and vitamins which have anti-inflammatory properties. It is also reported that Dietary Approaches to Stop Hypertension (DASH) diet and plant-based diets have anti-inflammatory effects. This review aims to present current information on the effects of major nutrients and dietary patterns on metabolic inflammation.

Keywords: Metabolic inflammation, nutrients, dietary patterns, Mediterranean diet.

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INVESTIGATION OF THE RELATIONSHIP BETWEEN ADHERENCE TO THE MEDITERRANEAN DIET AND PHYSICAL ACTIVITY, AND REACTION TIME IN ESPORT PLAYERS

Sedat Arslan¹, Ozan Bahadır Türkmen²

Aim: Electronic sport (eSports) is an organized video game where the team or individuals compete to achieve a specific goal at the end of the game. This study aimed to evaluate the relationship between esports players' adherence to the Mediterranean diet and their physical activities and reaction times.

Methods: In this cross-sectional study, the Mediterranean diet adherence scale (MEDAS) and international physical activity questionnaire (ipaq-short form) scales were applied to 25 esports players, and reaction times were measured via computer software.

Results: Half of the participants have had more than three years of gaming experience, but only 20% of active professional esports players. The mean MEDAS score of esports players is 5.9 ± 2.0 , indicating that the majority (64%) have low adherence to the Mediterranean diet. According to their ratings on the ipaq-short form, their value was 2414.4 ± 1646.4 met/min, and 96% of players were physically active. On average, the players were 237.2 ± 45.5 in reaction times. There was no statistically significant difference when comparing the reaction times of those who were low adherence to the Mediterranean diet and those who showed high adherence ($p > 0.05$).

Conclusions: The adherence of esports players to the Mediterranean diet was low, but no correlation was found between reaction time and adherence to the Mediterranean diet.

Keywords: Reaction time, esports, Mediterranean diet

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ANTI-INFLAMMATORY AND ANTIOXIDANT EFFECTS OF POMEGRANATE SEED OIL IN EXPERIMENTAL COLITIS

Açelya Gül Koyuncu¹, Elvan Yılmaz Akyüz², Alev Cumbul³, Müge Kopuz Alvarez Noval⁴

Aim: The purpose of this study was to evaluate the anti-inflammatory and antioxidant effects of pomegranate seed oil in an experimental acute colitis model induced by acetic acid in rats.

Method: The study was conducted on male Sprague-Dawley rats aged 8 to 12 weeks. The rats were divided into 4 groups (control group, colitis induced group by giving acetic acid, 0.4 ml/kg pomegranate seed oil group with acetic acid, 0.8 ml/kg pomegranate seed oil group with acetic acid), each consisting of 8 rats. After the rats were sacrificed, tumour necrosis factor α , interleukin 1 β , interleukin 6 and nuclear factor kappa B levels in blood and myeloperoxidase, malonaldehyde, glutathione, total antioxidant and oxidant levels in tissue were analysed.

Results: There was a significant weight loss and increased serum levels of interleukin 6, interleukin 1 β and tumour necrosis factor α in the colitis group compared to the other groups ($p < 0.05$). Administration of different doses of pomegranate seed oil significantly decreased nuclear factor kappa B levels, myeloperoxidase activity and total antioxidant levels ($p < 0.05$). Supplementation of 0.4 ml/kg and 0.8 ml/kg of pomegranate seed oil significantly improved the treatment.

Conclusion: Pomegranate seed oil has been found to be effective in the treatment of acute ulcerative colitis by showing antioxidant and anti-inflammatory effects.

Keywords: Experimental colitis, inflammatory bowel disease, pomegranate seed, pomegranate seed oil

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NUTRITIONAL PSYCHIATRY: NUTRITION AND MENTAL DISORDERS

Nursel Sahin¹, Saniye Bilici²

Mental disorders, which have become a global problem in recent years, significantly burden health, social, human rights, and economic outcomes. With the understanding that nutrition can be an important factor in the development of mental disorders, the concept of "nutritional psychiatry" has begun to be used. This review aims to examine the potential mechanisms between common mental disorders and nutrition and to evaluate the effectiveness of diet and nutraceutical interventions in line with current literature information. Inflammation, oxidative stress, gut microbiota, mitochondrial dysfunction, and neural plasticity are shown as potential mechanisms in the relationship between mental disorders and nutrition. Neurotrophic factors, which contribute to neuronal plasticity and repair mechanisms that play a role in mental disorders throughout life, are affected by nutritional factors. In addition, the antioxidant defense system works with the support of nutritional cofactors and phytochemicals. A well-planned diet that provides these components is more likely to provide nutrients that increase resilience to the pathogenesis of mental disorders. Therefore, dietary modifications are needed to maintain a balanced diet to protect mental health. Recognizing nutrition as a risk factor for mental disorders and developing public health strategies focused on improving diet will also help reduce the global burden of mental disorders and other associated diseases.

Keywords: Nutritional psychiatry, mental disorders, diet, nutraceuticals.

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FERMENTED FOODS AND GASTROINTESTINAL HEALTH

Melahat Sedanur MACİT ÇELEBİ¹

Aim: Fermented foods are traditional foods with significant health benefits, and their consumption dates back centuries. Fermented foods have various health benefits due to their microbial content, fiber, and polyphenol content. Fermented food consumption is also associated with the different health aspects of gastrointestinal symptoms. The aim of this study is to review fermented foods and their effects on the gastrointestinal system.

Methods: A literature search was conducted using the electronic databases PubMed, Web of Science, Cochrane, and LILACS. The search terms “fermentation,” “fermented foods,” “gastrointestinal health,” “functional foods,” “kefir,” “kimchi,” “saurkreut,” “kombucha”, “idli”, “dahi” and “yoghurt” were used.

Findings: The fermentation process in foods occurs naturally or with starter cultures. Sauerkraut, kimchi, and boza are naturally fermented foods, while kefir, kombucha, and yogurt are examples of fermented foods prepared with starter cultures. Some of the health benefits of fermented foods are anti-*Helicobacter pylori* activity, higher total bacterial and *Bifidobacterium* count and fecal pH, beneficial effect on stool frequency, defecation condition and stool consistency, FODMAP reduction, increase in treatment-related gastrointestinal complaints, reduced gastric acid secretion, ulcer-healing activity, infection control, bowel movement normalcy, reduced the intestinal permeability, induced the expression of mucin 2, oligomeric, mucus/gel-forming protein, expression of TJ proteins, increases in specific microbial taxa (high levels of *Lactococcus lactis* and *Leuconostoc mesenteroides*). Especially kimchi, yogurt, fermented milk, traditional Austrian sourdough, kefir, and kombucha were the fermented foods investigated in these studies.

Conclusion: Fermented foods are associated with the improvement of gastrointestinal health. Many fermented foods such as kefir, kombucha, kimchi and yogurt have been shown to have positive effects on the gastrointestinal tract. However, it is seen that studies on this subject are mostly in vitro and animal studies. Randomized controlled human studies on this subject will help to reveal clearer information on the subject.

Keywords: Fermented foods, probiotics, gastrointestinal health

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EVALUATION OF THE RELATIONSHIP BETWEEN SLEEP QUALITY AND OBESITY IN ADULTS

Betül Kocaadam Bozkurt¹

Aim: Many studies have shown that sleep quality may be associated with obesity. This study aimed to evaluate the association between sleep quality, anthropometric measurements, and body composition in adults.

Methods: The data were collected through a questionnaire containing socio-demographic characteristics and Pittsburg Sleep Quality Index (PSQI). The participants' height, body weight, waist circumference, and body fat ratio were evaluated. The total PUKI score ranges from 0 to 21. The sleep quality of those with a PSQI score of 5 or less was "good"; Those with a score above 5 are considered to have "poor" sleep quality. Higher scores indicate poorer quality of sleep. Ethical permission was obtained from the Erzurum Technical University Ethics Committee.

Results: In the study, 201 adults (49.3% male and 50.7% female, mean age 26.0±0.61) participated. 25.9% were overweight or obese (27.3% for males; 24.6% for females). The mean PSQI score was 8.5±3.87, and 62.2% of the participants had poor sleep quality. While the PSQI score showed a low positive correlation with BMI and waist circumference ($r= 0.193$, $p=0.009$; $r= 0.188$, $p=0.007$, respectively), it was not related to body fat (%) ($p>0.05$).

Conclusions: In the study, it was determined that the majority of the participants had poor sleep quality. Studies show that poor sleep quality may be associated with higher energy intake, poor diet quality, and obesity. The results of this study support that poor sleep quality may be associated with obesity. Longitudinal studies with large samples are needed to evaluate the effects of sleep quality on anthropometric measurements and body composition.

Keywords: Sleep quality, anthropometric measurements waist circumference, body fat, BMI,

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THE ROLE OF SOME PLANTS USED FOR SLIMMING PURPOSES IN DIET TREATMENT

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Plants for slimming and diet treatments have been used by people. Considering benefits of plants, they consumed them by purchasing them individually or as a mixture. For many years, they have studied plants using various sciences and studied their positive properties. The beneficial part and active ingredient of each plant differs; depending on purpose of use. Also the amount of ingredient affects the benefit. Some of these herbs have been effective on weight loss which provides sugar balance, creating a feeling of satiety and regulating metabolism. Five plant samples were examined in the study. These plants are Cinnamon (*Cinnamomum verum*), Green tea (*Camellia sinensis*), Mate tea (*Ilex paraguariensis*), Oat (*Avena sativa*) and Coffee (*Coffea arabica*). According to the literature these five plant samples were examined, defined and identified. Their role in diet therapy was reviewed. Frequent use in the diet was considered as selection criteria for plants. The effects of the selected plants' active ingredients upon weight loss were determined. As a result, it has been concluded that some of these plants have fat-burning properties, some have an effect on the metabolic rate, and some of them keep the satiety level at a certain level by preserving the body sugar balance.

Keywords: Plants, diet, slimming.

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ARE THE NUTRITIONAL AND EXERCISE HABITS OF INDIVIDUALS UNDERWENT BARIATRIC SURGERY DIFFERENT? -COMPARISON WITH BARIATRIC SURGERY CANDIDATES AND INDIVIDUALS IN THE HEALTHY BMI RANGE

Melis Ayca¹, Aylin Açıkgoz Pınar², Oktay Banlı³

Aim: The aim of this study is to compare the general and clinical characteristics, nutritional and exercise habits of individuals who have undergone bariatric surgery with bariatric surgery candidates and individuals with healthy body weight.

Methods: The study was conducted as a cross-sectional study with a total of 90 participants, the case group consisting of individuals who underwent bariatric surgery (n=30), the control group 1 consisting of bariatric surgery candidates (n=30), and the control group 2 consisting of individuals with normal body weight (n=30). While the age and preoperative BMI values of the control group 1 and the case group were matched, the ages of the control group 2 and the case group were matched and included in the study. The general information, clinical information, anthropometric measurements, exercise and eating habits of the participants were obtained with the form prepared by the researchers.

Results: The distribution of the participants by gender (Female; 73.3% in the case group, 53.3% in the control group 1 and 66.7% in the control group 2) and their average age do not differ between the groups ($p>0.05$). The frequency of university graduates was 63.3% in the case group, 50% in control group 1 and 96.7% in the control group 2 ($p=0.000$). While the frequency of having the chronic disease was 43.3% in the case group, it was 50% in the control group 1 and 6.7% in the control group 2 ($p=0.001$). The frequency of regular exercise of the individuals participating in the study was 20.0% in the case group, 3.3% in the control group 1 and 36.7% in the control group 2 ($p=0.01$). The frequency of snacking even though the participants were not hungry was 66.7% in the case group, 83.3% in the control group 1 and 46.7% in the control group 2 ($p=0.000$).

Conclusions: Regular follow-up should be provided by a multidisciplinary team in order to increase the success of the surgery by maintaining body weight loss in individuals who have undergone bariatric surgery.

Keywords: Obesity; bariatric surgery; general characteristics; eating habits

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DETERMINATION OF GREENHOUSE GAS EMISSIONS OF REGIONAL DIETARY PATTERNS ACCORDING TO TURKEY NUTRITION AND HEALTH SURVEY

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Aim: The United Nations Sustainable Development Goals 13. The Climate Action plan aims to take urgent action to combat climate change and its impacts. However, one-third of the anthropogenic causes of climate change are the dietary patterns of individuals and food production. Therefore, more preference for diet patterns thought to have less environmental impact may play a vital role in the prevention of climate change for global targets. The aim of this study is to determine the total greenhouse gas emissions of the dietary patterns of different geographical regions according to the Turkish Nutrition and Health Survey (TBSA) and to raise awareness about the environmental impacts they cause.

Methods: TBSA-2019 data were used in the nutritional composition of dietary patterns according to geographical regions. Geographical regions were made according to the Nomenclature of Territorial Units for Statistics. Greenhouse gas emission values were calculated using the LCA approach (Life-cycle assessment) from the data obtained as a result of systematic reviews.

Results: Dietary patterns of 12 regions were evaluated as a result of the Nomenclature of Territorial Units for Statistics. The West Marmara region diet had the highest greenhouse gas emission levels with 2983.79 g CO₂-eq/person/day, followed by the Istanbul diet and Southeastern Anatolia diet (2941.73 g CO₂-eq/person/day and 2935.08 g CO₂-eq/person/day) whereas the Mediterranean region diet had the lowest greenhouse gas emission levels with 2623.90 g CO₂-eq/person/day.

Conclusions: Our study highlighted the importance of regional differences between greenhouse gas emission levels of diets. The present study showed that dietary changes would significantly contribute to lowering greenhouse gas emission levels such as the Mediterranean region's diet. Reducing greenhouse gas emissions depending on the diet profile can contribute to the 3rd of the SDGs Good Health and Well-Being, the 12th to Responsible Consumption and Production, and the 13th to Climate Action.

Keywords: Sustainability, Greenhouse gas emissions, sustainable diet

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EVALUATION OF THE RELATIONSHIP BETWEEN EATING BEHAVIOR AND PSYCHOLOGICAL STATUS IN UNIVERSITY STUDENTS

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Aim: University students are one of the groups at risk of eating disorders and depression. The objective of this study was to evaluate the relationship between eating behavior and psychological status in university students.

Methods: The Eating Attitudes Test-Short Form (EAT-26) was utilized to evaluate eating behavior, and as the score obtained from the scale increases, the presence of eating attitude disorder becomes more evident. On the other hand, Kessler Psychological Distress Scale was used to evaluate the psychological status of the students. If the Kessler total score is 10-19, it is classified as likely to be well, 20-24 as likely to have mild psychological distress, 25-29 as likely to have moderate psychological distress, and 30-50 as likely to have severe psychological distress.

Results: 480 students participated in the study, and the average age of the participant was 20.8 ± 2.24 years. The mean score of EAT-26 used in the evaluation of eating behavior was 8.4 ± 6.04 , whereas the mean score of the Kessler distress scale was 26.9 ± 7.92 . The EAT-26 mean score of those likely to have severe psychological distress was higher than those likely to be well and to have mild psychological distress ($p < 0.01$). A positive correlation was also found between EAT-26 and Kessler ($r: 0.212$ $p < 0.01$).

Conclusions: According to the current study, depression was discovered to be associated with the risk of eating disorders among university students. Regarding this issue, further research on eating disorders and their causative factors needs to be undertaken with a larger sample size.

Keywords: Eating attitudes, eating behavior, psychological distress

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INVESTIGATION OF DIGITAL GAME ADDICTION, SLEEP AND EATING BEHAVIORS OF CHILDREN BY BODY MASS INDEX

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Aim: The aim of this study is to examine digital game addiction, sleep and eating behaviors according to body mass indexes in children.

Methods: This study is in quantitative, descriptive and general screening model design. A total of 252 mothers and their children aged 4-7 participated in the study. The Socio-Demographic Form, Digital Play Addiction Tendency Scale (DOBE), Child Nutrition Behavior Questionnaire (CEBQ) and Sleep Disorders Scale for Children (SDSC) were used to obtain datas. The body weight and height of children was questioned and recorded. Body mass indexes were classified by using World Health Organisation's children for five to 19 years growth percentile references values.

Results: Children who participate in the study are 13.9% overweight and 17.8% obese, while 15.5% of them are underweight. The rate of obesity (21.1%) was higher in boys than in girls (13.7%). The total score of DOBE is higher in overweight and obese children, but the difference is not significant ($p>0.05$). There are no significant relationship between BMI and SDSC sub-dimensions in children ($p>0.05$). Food responsiveness, enjoyment of food, satiety responsiveness and emotional undereating which are the sub dimensions of the Child Nutrition Behavior Questionnaire are related to BMI ($p<0.05$).

Conclusions: Digital game addiction, eating behavior and sleep disorders can have an impact on body mass indexes in children. These factors must be evaluated and parents, children, and teachers in schools should be trained in this regard.

Keywords: Body mass index, digital game addiction, nutritional behaviour, sleep disorders

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POPULAR DIETS

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Obesity, still continues to be one of the significant public health issue globally. Light obesity and obesity increases morbidity and mortality ratio in the first place which lead up to short and long term health issues. That's why, most of the people get nutrition treatment for preserve own bodyweight or decrease it. It is assumed that diet lists which are prepared for this propose warns some glut increment mechanisms. Among this diets, minimized carbohydrate content are the most popular ones. In this diets, it is aimed to while decreasing the carbohydrate, protein content is increased in order to provide daily energy. The weight-loss diets, high protein ones whose 30% is consists of protein are preferred. In this paper, we held popular igh protein, low energy diets like DASH, ketogenic and Dukan which are preapred for some treatments. In this compilation, current literature definitions about the diets mentioned above are mentioned along with implementation steps, advantages, contents and potential side effects and diseases. Furthermore, studies about the treatment of cancer, epliepsy, diabetes and hypertension are investigated to understand the bright sides and side effects of those diets on the treatment of diseaseas. In conclusion, it is aimed in this complition that utility of these diets in weight loss and treatments of diseases with the help of common outputs of studies.

Keywords: Popular diets, intermitting fasting (IF), ketogenic diet, hypertension

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PREGNANCY AND NUTRITION AFTER BARIATRIC SURGERY: CURRENT APPROACHES

Ayşe Nur Kaçan¹, Kübra Damla Ekenci²

According to Turkey Demographic and Health Survey 2018 (TNSA) data, the rate of obesity among women in reproductive ages (15-49 years) has increased from 23% to 30% in the last 5 years. Up to %80 of patients who undergo bariatric surgery are women in reproductive age. Obesity is associated with many metabolic diseases and infertility. Moreover, obesity during pregnancy increases pregnancy complications, morbidity of fetus and newborn. Bariatric surgery is currently emerging as a suitable treatment option for the improved fertility and prevention of obesity-related metabolic complications. The aim of this review is to examine the current literature on pregnancy and nutrition postbariatric surgery. A literature search was conducted to investigate nutritional outcomes of women with history of bariatric surgery and pregnancy. Search criteria focused on research articles, systematic review and meta-analysis studies covering the last 5 years in Pubmed, Science Direct and Google Scholar databases were scanned in accordance with keywords.

According to findings, although bariatric surgery mediated weight loss has a positive effect on pregnancy outcomes; various micro-nutrient deficiencies were reported. Especially anemia related to iron and vitamin B12 deficiency are common among pregnant post bariatric surgery patients. Despite that intrauterine growth retardation is associated with negative consequences of this surgery, evidence of such is still lacking. Further prospective studies are needed to confirm outcomes. As a conclusion, A pregnancy that develops after a bariatric surgery should be considered as a high-risk pregnancy. Postponing pregnancy for at least 12-24 months following bariatric surgery is recommended as the most appropriate time. In order to optimize pregnancy outcomes after bariatric surgery, Pregnants should be followed providing appropriate food supplementation. Multidisciplinary and integrated clinical care should be provided before and after pregnancy. Among teams, dietitians have an critical role in maintaining the health of pregnant who have undergone bariatric surgery.

Keywords: Bariatric surgery, pregnancy, nutritional outcomes, maternal outcomes, neonatal outcomes

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DEVELOPMENT OF THE MOBILE “HEALTHY LIVING APPLICATION” AND EVALUATION OF THE EFFECT OF USING IT’S ON THE NUTRITIONAL AND PHYSICAL ACTIVITY HABITS OF UNIVERSITY STUDENTS

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Aim: Raising awareness of university students about healthy nutrition and physical activity is important for public health. This study was carried out to develop a mobile “Healthy Living Application” to raise awareness among university students about healthy nutrition, adequate water intake, and regular physical activity.

Methods: First, a mobile healthy living application was developed by researchers. Afterward, the descriptive information, weight, height, dietary habits, and 3-day food records of the students were obtained through a questionnaire. Also “Nutrition Knowledge Scale for Adults” and “International Physical Activity Questionnaire-Short Form (IPAQ-SF)” were applied. In the second stage, the mobile application was used for one month and then the questionnaire was applied again. The data were evaluated with the SPSS 22.0 package program.

Results: This study was completed with 86 (31 males and 55 females) volunteers. The mean age of the individuals was 21.6±1.55 years. It was determined that the basic nutritional knowledge level of 8.1% of the individuals was "bad" before using the application, and it decreased to 1.2% after using the application (p=0.001). According to basic nutrition scores, the frequency of individuals with a "very good" knowledge level was 2.3% before using the application, while it increased significantly to 29.1% after using the application (p=0.001). It was determined that the water intake after using the application increased significantly in both genders (males: 2.2±0.87 L/day before the application; 2.5±0.67 L/day after the application, and females: 1.7±0.69 L/day before the application; 2.7±0.58 L/day after the application; p=0.000). While 19.8% of the individuals were sedentary before using the application, it was observed that this value decreased to 9.3% after using the application.

Conclusions: It has been determined that the developed mobile application has a positive effect on individuals' nutritional knowledge levels, water intake, and physical activity levels.

Keywords: Mobile application, healthy nutrition, nutritional knowledge level, physical activity, water intake

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A NEW GENERATION THERAPEUTIC AGENT IN ULCERATIVE COLITIS: FECAL MICROBIOTA TRANSPLANTATION

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In the clinic, ulcerative colitis (UC) treatment is usually carried out with pharmacological agents such as immunosuppressants and antibiotics. However, as a result of long-term use of these agents, serious side effects can be seen and this leads to a decrease in the quality of life of the UC patients. Various administrations that can be an alternative to pharmacological treatment in UC are subject to more and more studies every day. One of these innovative administrations is fecal microbiota transplantation (FMT). In this procedure, feces samples taken from healthy donors are administered to UC patients in various ways (e.g. enema or colonoscopy) after some procedures.

The purpose of FMT is to reconvert the intestinal microbiota pattern, which exhibits dysbiotic character in the presence of UC, to a healthy microbial composition. Because the presence of dysbiosis significantly increases the release level of inflammatory cytokines, which is the biggest obstacle to remission in UC. In various clinical studies in the literature, it has been shown that FMT administration increases the clinical remission rates of UC and leads to significant decreases in clinical scoring that measures the severity of the disease. In some RCTs involving FMT, it was determined that the density of bacteria in the genus "Clostridium cluster IV" and "Clostridium cluster XIVa", which are thought to have a role in the formation of UC, decreased.

In the treatment of UC, FMT stands out as an alternative therapeutic administration due to its low cost and less side effects compared to pharmacological treatment. However, it has been determined that the number of RCTs is limited in the literature, and the frequency and duration of administration vary considerably. Therefore, more RCTs are needed to clarify the effectiveness of the FMT administration.

Keywords: Ulcerative colitis, fecal microbiota transplantation, dysbiosis.

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ALTERNATIVE THERAPEUTIC APPLICATIONS IN THE TREATMENT OF ULCERATIVE COLITIS: PREBIOTICS

Mahir Arslan¹

In the treatment of ulcerative colitis (UC), which is an inflammatory bowel disease, some pharmacological agents such as anti-inflammatories and antibiotics are used commonly. In addition the remission benefits of these agents, the resulting side effects have prompted researchers to develop alternative therapeutic treatments. In this study, it was aimed to review the effects of prebiotic supplementation as one of the alternative applications in the treatment of ulcerative colitis. In recent years, the revealed mechanisms regarding the relationship between UC formation and alternative therapeutic applications have increased the interest in potential alternative agents that can be used in the treatment of UC. Prebiotic supplementation is one of the alternative treatment approaches which use and effectiveness in the treatment of UC have been investigated.

It is indicated that prebiotics can be effective in the treatment of ulcerative colitis due to their potential effects such as protection of the intestinal barrier integrity, contribution to the increase in the amount of probiotic bacteria such as Lactobacillus and Bifidobacterium in the intestinal microbiota, reduction in the inflammation of colon through inhibition of the NF-kB signaling pathway, strengthening the intestinal barrier mechanism and improving immune system functions.

When current studies investigating the effect of prebiotics in UC are examined, it is seen that the results obtained are contradictory. However, it is thought that it is too early to recommend the use of prebiotics in the treatment of UC due to the diversity in parameters such as the duration of the prebiotic supplement applied in the studies, the dosage and the prebiotic source used.

Keywords: Ulcerative colitis, prebiotics, alternative treatment, microbiota

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THE ROLE OF NUTRITION IN DERMATOLOGICAL DISEASES

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Skin as the largest organ of the human body plays an important role in regulating body temperature and controlling water loss, as well as being a protective barrier against environmental influences. It has been reported that nutrition and skin health are closely related. While nutritional therapy applied in some chronic skin diseases has a positive effect on symptoms, some foods can trigger symptoms related to skin diseases. While dietary intervention is recommended as a part of acne treatment; nutritional changes can be a preventive approach to protect the skin from aging and cancer. Especially in inflammatory chronic skin diseases such as psoriasis, atopic dermatitis, suppurative hidradenitis, bullous diseases, vitiligo, and alopecia areata, various compounds found in foods, including additives in processed foods, are cited as potential triggers, and low nutrient levels in the body (eg. low serum vitamin D) associated with increased inflammation. Western-style diets characterized by high sucrose, saturated fat, and processed refined grains are reported to be associated with the severity of acne. While the Mediterranean diet is indicated as a preventive diet for acne due to its anti-inflammatory effect, it has been shown that the high clinical severity of the disease and low adherence to the Mediterranean diet are significantly associated with hidradenitis suppurativa. It has been stated that probiotics have positive effects on dermatological diseases by reducing proinflammatory responses and increasing the diversity of the gut microbiota. Studies have shown that the use of some probiotic strains for symptomatic and clinical improvement in atopic dermatitis and their use as adjunctive therapy for acne treatment together with antibiotics have shown positive results. Collaboration between nutrition and dermatology departments can play a key role in the management of diseases. Nutritional therapy given as a complement to pharmacotherapy may have positive effects on the clinical progression of related diseases.

Keywords: Acne, dermatological diseases, nutrition

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NOVA, A NEW APPROACH TO FOOD CLASSIFICATION

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The term ultra-processed is a derived term to refer to industrial formulations produced by processing substances synthesized from nutritional or other organic sources. Ultra-processed foods (UPFs) typically contain little or no whole food; In addition, these foods are ready to be consumed or heated and are low in dietary fiber, protein, various micronutrients and bioactive compounds. These foods are fatty, salty or sugary such as sweet, fatty or salty packaged snacks, ice cream, sugary drinks, chocolates, candies, french fries, hamburgers and hot dogs, chicken and fish nuggets. UPFs are defined within the NOVA (not an acronym) food classification system that groups foods according to the nature, extent and purpose of the industrial processing to which they are subjected. Food processing, as defined by NOVA, includes the physical, biological and chemical processes used after foods are separated from their nature, before they are prepared to be served or consumed as food. NOVA has classified food into four groups based on the type of processing: 1) Unprocessed and minimally processed foods, 2) Processed culinary ingredients, 3) Processed foods, and 4) “Ultra-processed” foods. The aim of this literature review is to introduce NOVA system and to explore current criticism of this classification in the context of its functionality and UPFs intake. Suitable articles published in the last five years were sourced through the PubMed and Science Direct databases. Overall, a debate is ongoing on the significance and appropriateness of the NOVA classification as a tool for categorizing foods based on their degree of processing and association between UPFs intake and health outcomes. Findings suggest that there are some concerns about NOVA in the context of accuracy of categorization of food products and inconsistency of UPFs intake. Food industry studies reported that it can leads to negative perception to UPFs by many consumers.

Keywords: Ultra processed foods, NOVA food classification system, processed foods

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USE OF SYNBIOTICS IN THE TREATMENT OF ULCERATIVE COLITIS

Mahir Arslan¹

Many studies in recent years have reported that probiotic supplementation is effective and safe in the treatment of ulcerative colitis (UC). Parallel to this, some studies have reported that prebiotic supplementation improves some symptoms of the disease and decreases the level of inflammation in UC patients. According to these data obtained, it is expected that the effectiveness of treatment will increase as a result of the synbiotic application of probiotics and prebiotics that increase their metabolic activity level. The main purpose of synbiotic applications is to reveal a synergistic and stronger effect by using the two components together, rather than the results to be obtained separately with probiotic and prebiotic supplementation. In experimental studies, it has been reported that synbiotic supplementation is more effective than the use of prebiotics and probiotics alone in changing the state of dysbiosis and reducing the levels of some proinflammatory cytokines. In this respect, the use of synbiotics is seen as a functional alternative method in the treatment of UC. However, there are also studies showing that synbiotic application does not make a significant difference in the prognosis of UC compared to prebiotic or probiotic supplementation alone. Although it is stated that the use of synbiotics in the treatment of UC may have positive effects on the progression of the disease, it should be noted that the existing studies are not yet at a sufficient level in terms of randomized controlled design, sample size and number, and the results of some studies examining the use of synbiotics in the treatment of UC are contradictory. In addition, more detailed and advanced in vivo studies are needed in terms of methodology to clarify the probiotic and prebiotic species that can be used in UC and to determine the dose required for optimum synergistic effect.

Keywords: Ulcerative colitis, synbiotics, alternative treatment, microbiota

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INVESTIGATION OF THE RELATIONSHIP BETWEEN ANTHROPOMETRIC MEASUREMENTS AND BODY FAT RATIO AND REASONS FOR EXERCISE ORIENTATION: A CROSS-SECTIONAL STUDY

Eda Merve Kurtuluş¹, Münevver Başak Onat¹, Zeynep Şeyda Bilim¹, Gizem Uzlu Dolanbay¹, Ayşe Huri Özkarabulut¹

Aim: Determining the reasons for orientation to exercise is important in increasing the participation rates in exercise. Accordingly, in this study, the relationship between anthropometric measurements and behavioral regulation in exercise is studied to highlight the underlying reasons for conditioning and maintaining regular exercise.

Methods: Sociodemographic data form and a 19-question questionnaire, Behavioural Regulations in Exercise Questionnaire-2 (BREQ-2), were applied to the participants. Participants' height, neck circumference, upper middle arm circumference, waist and hip circumference were taken according to the technique. Body fat and muscle mass were measured with TANITA SC 330. The data were analyzed at SPSS 24.0 packet program. Non-parametric tests are used, p values under 0.05 accepted as significant.

Results: A total of 117 participants, 49 men and 68 women, were included in the study. Male participants had higher BMIs than females (27.03 ± 3.86 ; 26.86 ± 5.53 , $p=0.001$); but lower body fat percentages (20.09 ± 6.07 ; 26.75 ± 8.9 , $p=0.001$). Waist circumference/height ratio was higher in men (0.55 ± 0.14 ; 0.53 ± 0.09 , $p=0.043$). Frequency of the exercise given in times per week, exercise duration, and weeks of exercise performance show no significant difference among the genders. Participants with lower adipose indexes gave statistically significantly more "strongly disagree" answers to the statement "I feel pressure from my friends/family for making exercise" on the BREQ-2 scale ($p=0.006$). No statistically significant relationship was found between other scale answers and anthropometric measurements or gender.

Conclusions: Participants with a higher adipose index reported that they felt more pressure from their friends and families for making exercise. Further studies are needed to understand the possible long-term effects of this situation on individuals' exercise orientations and body compositions.

Keywords: Nutrition, anthropometric measurements, exercise orientation

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ABSTRACTS BOOK

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BANDIRMA – BALIKESİR / TÜRKİYE

ALTERNATIVE NUTRITION MODELS FOR ATHLETIC INDIVIDUALS WITHIN THE SCOPE OF SUSTAINABLE NUTRITION

Nurettin Konar¹, Çiğdem Aykut²

Aim: The purpose of this study is to raise the awareness of sustainable nutrition among athletes and to convey the importance of nutrition to athletes.

Methods: Google Scholar that searches only academic articles and topics and national thesis center in the Turkey were used in the study. Six keywords (sustainable diets, sports nutrition, alternative nutrients for athletes, sustainability, sustainable diets, athlete nutrition) were determined through the literature review. With scan conducted on 2022-09-12 and 2022-10-27, a total of 18 scientific resources (9 journal; 4 master's thesis; 1 doctoral thesis; 2 book; 2 internet resource) have been reached.

Results: Nutrition, which is one of the basic needs of people, is one of the important factors that closely effect the health of individuals. Nutrition has a very important place in terms of the healthy continuity of life of both sedentary and athletic individuals. In addition to providing sustainable society nutrition, sustainable athlete nutrition should also be implemented. Nutrition and nutritional habits are one of the most important environmental factors required for the general health of athletes, who need more energy and nutrients than sedentary individuals, as well as for the continuity of sports performance and the least exposure to injury risk. In order to effectively create sustainable athlete nutrition, alternative sources should be preferred instead of food sources that have more negative effects on the environment, taking into account the decreasing resources and increasing environmental pollution. Nutritional models suitable for sustainable nutrition are for the consumption of foods with low water and carbon footprints. Diets such as the Mediterranean Diet, the Nordic Diet and the Vegan Diet incorporate many types of nutrient-rich traditional foods into sustainability. Nutrition programs implemented with these diet models help sustainability by increasing the use of food diversity. Whey and its products, soybean and its products, which are considered as waste in production, can be counted among alternative foods in sustainable sports nutrition as alternative food sources that contribute to sustainability. Sustainable diet models and alternative foods may contribute to the planning of athlete nutrition.

Conclusion: It is recommended to get help from sports dietitians for the continuity of the sustainability system and for the athletes to continue their development in a healthy way, to plan sustainable sports nutrition in order not to lose performance, and to integrate alternative foods into the diets of the athletes.

Keywords: Sustainability, sustainable diets, athlete nutrition.

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THE EFFECT OF ATHLETICS BASIC EDUCATION ON STUDENTS' MOTOR SKILLS AND ATTITUDE TOWARD ATHLETICS

Gizem Başkaya¹, Sare Bostancı², Bekir Çar³, Nurettin Konar³

Aim: The aim of this study is to investigate the effects of athletics basic education on students' anthropometric measures, motor skills, and attitudes toward athletics.

Methods: A total of 34 students from the Faculty of Sport Sciences, 17 woman (age: 19.94±1.110 years; body weight: 58.29±11.601 kg; body length: 166.33±4.982 cm; BMI: 21.04±4.034) and 17 man (age: 19.94±1.110 years; body weight: 58.29±11.601 kg; body length: 166.33±4.982 cm; BMI: 21.04±4.034), participated in the research. The students were applied basic athletic's education for 10 weeks. Anthropometric measurements (body fat percentage, fat weight, muscle weight), motor skill tests (vertical jump, standing long jump, acceleration, sprint, and COD), and the Athletics Attitude Scale were performed as pre-test and post-tests. The SPSS 23.0 package program was used for statistical analysis. Paired-Samples T test and ANOVA test were used in the intra-group pre-test and post-test comparisons regarding the effect of education and the level of significance was taken as p<0.05.

Results: As a result of the analysis, it was determined that the students' attitudes towards athletics did not differ according to the variables of gender, age, being a licensed athlete, the type of high school they graduated from, and the sports branches (p>0.05). When motoric and anthropometric values are examined; fat percentage of male students (p=.001), fat weight (p=.001), standing long jump (p=.018), 10 meters acceleration (p=.045), 30 meters sprint (p=.004) and change-of-direction (p=.005) values were found to cause a statistically significant difference after education (p<0.05). In women students, the parameters affected by this education were found to muscle weights (p=.004) and vertical jump (p=.005) performance.

Conclusions: As a result, it can be said that while basic athletics education practices do not have a significant effect on students' attitudes towards athletics, they have positive effects especially on male students in terms of changes in motor skills and anthropometric measurements.

Keywords: Athletics, antropometry, physical education, speed, attitude

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RELATIONSHIP BETWEEN SOME PERFORMANCE TESTS AND MATCH PERFORMANCE IN WOMEN FOOTBALL PLAYERS

Gizem Başkaya¹, Yağmur Akkoyunlu¹

Aim: The aim of this study is to investigate the relationship between some performance tests and match performance in women football players.

Methods: A total of 24 athletes (age: 25.21±5.532 years; training age: 12.33±5.027 years; body weight: 59.89±5.736 kg; length: 168.58±3.450 cm) voluntarily participated in the research. Countermovement jump (CMJ), squat jump (SJ), 10m acceleration, 30m sprint, Yoyo Intermittent Recovery Test (Yoyo-1), 30-15 Interval Fitness Test (30-15 IFT) were applied to the athletes as performance test. In order to determine the match performance, a preparatory competition was held and the movement analysis of the athletes were recorded with GPS during the competition. Within the scope of the analysis, the total running distance, high intensity running distance (18-23.9 kms-1) and number, sprint distance (>24 kms-1) and number, maximum sprint speed, average speed, acceleration and deceleration numbers were evaluated. The SPSS 25.0 program was used for statistical analysis. The Pearson correlation analysis were used to explain relationships between performance tests and match performance. To interpret the magnitude of the correlation coefficients, the following criteria were used: <0.1 trivial, 0.1<r<0.3 small, 0.3<r<0.5 moderate, 0.5<r<0.7 large, 0.7<r<0.9 very large and r>0.9 almost perfect. The level of significance was taken as p<0.05.

Results: As a result of the analysis, it was found that there was a moderate positive relationship between the Yoyo-1 running distance and Yoyo-1 finishing speed of the athletes with the total running distance (r=0.485; r=.423), and a moderate positive relationship between the 30-15 IFT running distance and number with the total running distance (r=.431; r=.409). Moderate negative relationship (r=-.431; r=-.419) between HSR number and average speed with 30m sprint performance; a moderate negative relationship (r=-.448; r=-.474) was found between maximal sprint speed with CMJ and SJ (p<0.05).

Conclusions: As a result, the performance tests used within the scope of the study are related to different performance components that occur during the match. However, it is understood that it does not provide enough information to evaluate the competition as a whole, so it is a correct approach to evaluate the competition performance over the performance parameters obtained from comprehensive and multiple tests.

Keywords: Football, endurance, field test, sprint, running distance

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METAPHORIC PERCEPTIONS OF UNIVERSITY STUDENTS' ATTITUDES TOWARDS THEIR PEERS WITH SPECIAL NEEDS: A MIXED METHOD ANALYSIS

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Aim: This purpose shapes their attitudes and metaphorical perceptions towards their peers for the private use of the university. The aim of this September is as successful studies in the developments in Bandırma sports sciences faculty and university. Quantitative and qualitative data of the study were collected from 113 students. However, 16 data were not answered and were excluded from the study.

Method: The quantitative data of the research were obtained with the "Multidimensional Attitude Scale towards Disabled Persons" adapted to Turkish culture by Yelpaze and Türküm (2018). The scale consists of three sub-dimensions, emotion, thought, and behavior, and 31 items. In order to collect qualitative data, the participants were asked to complete the sentence "When I see a peer of my university student with special needs, I become..... because.....". In the research, data were collected and analyzed by using convergent parallel design, which is one of the mixed research methods.

Results: Quantitative, perhaps pleasant, does not meet expectations. It's about the course of not taking a course with disabled people and the ones related to the point of view in terms of not having a disabled relative. Also, she has not been in a lifetime in her age classes, classes. Since they are grouped under 4 themes, they are produced for systems of Qualitative systems. These themes measure as "Equality", "Successful/Combatant", "Empathy/Support", "Accessibility/Possibilities".

Conclusion: As a result of this research, it has been revealed that university students have positive attitudes towards individuals with special needs. In addition, it was concluded that students' attitudes were positive in the sub-dimensions of thought and behavior, and moderate in the sub-dimension of emotion.

Keywords: University student, individual with special needs, attitude, metaphor.

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INVESTIGATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL RESILIENCE AND EMPATHY LEVELS OF SPORTS SCIENCES FACULTY STUDENTS

Serkan Necati Metin¹

Aim: This study was conducted to determine the psychological resilience and empathy levels of the students studying at Bandırma Onyedi Eylül University Faculty of Sport Sciences.

Methods: For this purpose, a total of 105 people, 66 of whom were male and 39 of whom were female, participated in the study. In order to obtain the research data, in addition to the personal information form containing some demographic information, the "Empathy Level Determination Scale" whose validity and reliability study was conducted by Kaya and Çolakoğlu (2015) and the "Psychological Resilience Scale" conducted by Doğan (2015) were used. Since the sample group was small and the data were not normally distributed, Kruskal Wallis test was used for multiple comparisons and Pearson Correlation test was used to examine the relationship between empathic level and psychological resilience.

Results: As a result of the research, it was understood that the differences in the body mass indexes of the students were significant differences in terms of emotional response and cognitive empathy sub-dimensions and total empathy levels ($p < 0.05$), but there was no significant difference in the social skills sub-dimension. When their psychological resilience was evaluated in terms of years of practicing sports, no significant difference was found ($p > 0.05$). When psychological resilience and empathy levels were examined together with all sub-dimensions, it was found that there was a significant positive relationship between the cognitive empathy sub-dimension ($p < 0.05$), but there was no significant positive relationship between the emotional response and social skills sub-dimension and the total scale ($p > 0.05$).

Conclusions: As a result of the study, it was determined that those with normal body mass indexes had lower levels of empathy compared to those who were underweight, overweight and obese.

Keywords: Empathy levels, psychological resilience, student

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INVESTIGATION OF EXERCISE ADDICTION AND EMPATHY LEVELS OF FACULTY OF SPORT SCIENCES STUDENTS IN TERMS OF DIFFERENT VARIABLES

Melike Bakırcı¹, Yağmur Akkoyunlu²

Aim: This study was conducted to evaluate the exercise addiction and empathy levels of students studying at Bandırma Seventeen Eylül University Faculty of Sport Sciences in terms of different variables.

Methods: A total of 105 people, 66 males and 39 females, participated in this study. In addition to the personal information form, the "Exercise Addiction Scale for Young People", whose validity and reliability study was conducted by Dokuzoğlu et al. (2022) and the "Empathy Level Determination Scale" conducted by Kaya and Çolakoğlu (2015) were used to obtain research data. Since the sample group was small and the data were not normally distributed, Mann-Whitney U test was used for pairwise comparisons and Kruskal Wallis test was used for multiple comparisons. In addition, Pearson Correlation test was used for the relationship between exercise addiction and empathy levels.

Results: While there was a significant difference between the gender differences of the students and their empathy levels in the emotional response sub-dimension ($p < 0.05$), there was no significant difference in the social skills, cognitive empathy, sub-dimensions and the total scale. ($p > 0.05$). It was understood that there was no significant difference between the age differences of the students in terms of exercise addiction. ($p > 0.05$). It was determined that there was a positive relationship between exercise addiction and empathy levels in all sub-dimensions and in total. ($p < 0.05$).

Conclusions: As a result, it can be said that students with high exercise addiction also have high levels of empathy.

Keywords: Empathy, exercise addiction, student

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OUTDOOR SPORTS AND ADVENTURE EDUCATION IN THE DEVELOPMENT OF 21ST CENTURY SKILLS

Nuh Osman Yıldız¹

In recent years, scarcity of resources, technological developments, changing market conditions, etc. have led to an increase in the dose of competition between organizations. This situation has brought about the change in the skills that organizations want from their members. These skills are the skills that organizations expect their members to have in the last two decades, such as creativity, problem solving, cooperation, communication, self-management, flexibility, critical thinking and leadership under the name of 21st century skills. Undoubtedly, one of the best methods to be used in transferring these skills to individuals is education. One of the education models used in educating individuals and providing skill development is the experiential learning model, the importance of which is emphasized by many education and professional organizations. In this direction, it arouses curiosity whether nature and adventure education, which is one of the types of education structured with the experiential learning model, can be used to transfer 21st century skills to individuals.

In this context, the study aims to examine the use of nature and adventure education in transferring 21st century skills to individuals.

When the literature on adventure education and outdoor sports is examined, it is seen that practising outdoor sports and getting adventure education create a sense of adventure in the participants also it is determined that this kind of sports and educations improve many skills including 21st century skills such as creativity, problem solving, self-confidence, leadership, communication, and teamwork.

As a result, as can be understood from the studies in the literature on adventure education, it is possible to say that adventure education or outdoor sports is an education that will develop 21st century skills and it is possible to recommend the use of this education.

Keywords: Adventure based learning, experiential learning, partnership for 21st century learning

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INVESTIGATION OF THE RELATIONSHIP BETWEEN EXERCISE ADDICTION AND PSYCHOLOGICAL RESILIENCE OF SPORTS SCIENCES FACULTY STUDENTS

Kamil Uzgur¹, Nurettin Konar²

Aim: This study was conducted to determine the psychological resilience and exercise addiction of the students studying at Bandırma Onyedi Eylül University Faculty of Sport Sciences.

Methods: For this purpose, a total of 105 people, 66 of whom were male and 39 of whom were female, participated in the study. To obtain the research data, in addition to the personal information form containing some demographic information, the "The Youth Scale of Exercise Addiction" whose validity and reliability study was conducted by Dokuzoğlu at. all and the "Psychological Resilience Scale" conducted by Doğan were used. Since the sample group was small and the data were not normally distributed, the Kruskal-Wallis test was used to examine the difference between the groups, Mann-Whitney U test was used for paired comparisons and the Pearson correlation coefficient test was used to examine the relationship levels.

Results: As a result of the research, there was no significant difference in the gender of the students in terms of psychological resilience ($p>0.05$). Although there is no significant difference when exercise addictions are evaluated according to years of playing sports, the average scores of people who have been doing sports for 6-10 years for have higher scores than those who have been doing sports 11 years or more and 1-5 years ($p>0.05$).

Conclusion: As a result of the research, it was understood that there was no significant relationship between exercise addiction and psychological resilience. It is thought that a significant relationship can be found because of increasing or changing the number of the sample group.

Keywords: Student, psychological resilience, exercise addiction

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INVESTIGATION OF PHYSICAL ACTIVITY LEVELS OF SCIENCE HIGH SCHOOL STUDENTS ACCORDING TO DIFFERENT VARIABLES

Nurettin Konar¹, Ahmet Kurtoğlu², Şermin Elif Örsek³

Aim: The purpose of this research is to determine the physical activity status of students studying at science high schools according to their dormitory stay, class and gender variables.

Methods: 277 (144 male, 133 female) students studying at Karacabey Ulviye Matlı Science High School in Bursa province participated in this research. After the demographic information of the participants (class, sport branch, status of dormitory) was recorded. The 'International Physical Activity Questionnaire (Short Form)' was used to determine the level of physical activity. Since the data were normally distributed, the Independent Sample T-Test was used for pairwise comparisons and the One-Way Anova Test for comparisons with more than two groups. Pearson-Koreason analysis was performed to determine the relationship between the variables.

Results: As a result of the statistical analysis; It was determined that 72.57% of the participants did no or very little physical activity. It was determined that 37.9% (105 people) of the participants stayed in the dormitory and it was concluded that 22.85% of them regularly participated in physical activities. It was determined that 30.23 of the participants (172 people) who did not stay in the dormitory regularly participated in physical activities. When the class level was examined, a significant difference was found between the physical activity levels of the participants. When evaluated according to gender, it was determined that female participants participated in physical activities significantly less. In the Pearson Correlation analysis, it was determined that there was a significant relationship between gender and physical activity.

Conclusion: According to the results of our research, it was observed that the physical activity levels of science high school students were generally low. It has been determined that the physical activity levels of the students staying in the dormitory are lower. For this reason, it is recommended to increase the efforts to increase physical activities in schools that accept students through central exams.

Keywords: Science high school, dormitory, physical activity

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THE EFFECT OF HAND GRIP STRENGTH ON SPRINT SWIMMING PERFORMANCE IN YOUNG SWIMMERS

Aşkın Şentürk¹, Bedirhan Tolun², Bergün Meriç Bingül³

Aim: The aim of this study is to examine the effect of hand grip strength on sprint swimming performance in young swimmers.

Methods: 14 national swimmers (mean FINA points 490.21 ± 63.08 , mean age 14.42 ± 1.21), who main stroke is 50 m or 100 m, participated in the research. Sprint swimming performance was evaluated according to the short course meters 2021 FINA points system. Participants' height, weight, hand length, hand width, right hand grip strength and left hand grip strength, right hand-left hand grip strength difference were measured. IBM SPSS 25.0 program was used for data. Descriptive statistics were made on the data. The normality of the data was tested with the Shapiro-Wilk test and Pearson correlation analysis was applied to the data.

Results: A positive significant correlation was found between sprint swimming performance and height, weight, right hand grip strength and left hand grip strength. There was no significant relationship between sprint swimming performance and hand length and hand width. A positive significant correlation was found between hand grip strength and hand width.

Conclusions: Hand grip strength is an important indicator of sprint swimming performance in young swimmers. As hand grip strength increases, short-distance swimming performance it also increases. In addition, height and weight are also important indicators of short-distance swimming performance in young swimmers. Although hand width did not show a significant relationship with swimming performance, it showed a positive significant relationship with hand grip strength. As the hand width increases, the hand grip strength also increases. The sprint swimming performance of young swimmers can also be increased with training aimed at improving hand grip strength.

Keywords: Sprint swimming performance, hand grip strength, sports

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ABSTRACTS BOOK

PHYSIOTHERAPY AND REHABILITATION ORAL PRESENTATION

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BANDIRMA – BALIKESİR / TÜRKİYE

EFFECT OF EXPIRATORY MUSCLE TRAINING ON STOMATOGNATHIC SYSTEM IN PATIENTS WITH STROKE

Ömer Dursun¹, Tamer Çankaya², Erdal Dilekçi³

Aim: The aim of this study was to analyze and assess the effect of expiratory muscle training on the stomatognathic system in patients with stroke.

Methods: Total of 31 individual included as 16 control and 15 study group to the study. Temporomandibular joint range of motion, masticatory muscle pressure pain threshold, facial asymmetry existence, head posture, oral hygiene health and habit, masticatory performance, intraoral pH, deglutition function and deep neck flexor muscle endurance of the individuals was assessed in order by; digital caliper, algometry, labial commissure and craniocervical angle measurement, general oral health assessment index and questionnaire, sieve test, digital pH gauge, repetitive saliva swallow test and, eating assessment tool and deep neck flexor endurance test. While study group was enrolled to 3-week respiratory muscle training in addition to conventional physiotherapy, control group enrolled to the conventional physiotherapy programme.

Results: While masticatory performance and masticatory muscle pressure pain threshold of the study group higher ($p<0,05$) in intergroup comparison, it was observed that both groups especially the study group did not pay much attention on oral hygiene habits. Although expiratory muscle training improved the bilateral lateral deviation and depression range of motion ($p<0,05$), no improvement was seen in other values ($p>0,05$), from this point of view expiratory muscle training have no impact on the stomatognathic system.

Conclusions: Our study showed that, expiratory muscle training improves mandibular lateral deviation and depression in patients with stroke.

Keywords: Stomatognathic system, deglutition, mastication.

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EFFECT OF COSTAL MOBILIZATION ON RESPIRATORY MUSCLE STRENGTH, FUNCTIONAL CAPACITY, AND QUALITY OF LIFE IN ADOLESCENTS DIAGNOSED WITH SCOLIOSIS (Pilot study)

Ozden Gokcek¹, Mine Argali Deniz², Mine Gulden Polat³, Hasan Hallaceli⁴, Raif Ozden⁴

Aim: In idiopathic scoliosis, there is lateral flexion and rotation of the vertebrae, and rotation affects the shape of the thorax, and chest wall deformities cause pulmonary problems. Our aim in this study is to examine the effect of the costal mobilization technique on respiratory muscle strength, functional capacity, and quality of life in idiopathic scoliosis.

Methods: Eight children aged 12-18 years with a diagnosis of scoliosis were included in the study. Exercise and costal mobilization group (n=4), and exercise group (n=4). The demographic information of the children was recorded. Respiratory muscle strength was evaluated with a mouth pressure measuring device, functional capacity 6 min walking test, dyspnea severity was evaluated with a modified borg scale, and quality of life was evaluated with SRS-22 form. The second evaluation was done 6 weeks later.

Results: The average age of the children in our study; was 14.00 ± 2.44 years in the costal mobilization group and 16.75 ± 0.50 years in the control group. It was observed that respiratory muscle strength values increased more in the costal mobilization group after the treatment compared to the exercise group. In addition, after the treatment, in the costal mobilization group, the sub-parameters of the SRS-22 form, such as body image, health, satisfaction with the treatment, and 6-minute walking distance increased more than in the exercise group, and there was a decrease in the severity of dyspnea ($p=0.046$).

Conclusion: It was determined that costal mobilization application provided an increase in respiratory muscle strength and quality of life in scoliosis, and a decrease in the severity of dyspnea. In this respect, we think that innovative approaches should be included in physiotherapy applications in the clinic.

Keywords: Idiopathic scoliosis, costal mobilization, exercise, respiratory muscle strength

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EFFECTS OF MAT PILATES EXERCISES ON MUSCULOSKELETAL SYSTEM, BODY COMPOSITION AND PSYCHOSOCIAL STATUS IN HEALTHCARE PROVIDERS

İklîma Nur Enes¹, Sanem Şener²

Aim: The aim of this study is to investigate the effects of Mat Pilates exercises on musculoskeletal system, body composition and psychosocial status in healthcare providers.

Methods: The study was carried out with 32 participants who were randomly divided into two groups as Mat-Pilates Group (n=16) and Control Group (n=16). Mat-Pilates Group performed Mat Pilates exercises with supervision of a physiotherapist, for about 1 hour per day, twice a week during 8 weeks. Control Group did not participate in any exercise program.

Results: A significant increase was observed in all flexibility parameters in the Mat-Pilates Group compared to the Control Group ($p<0.01$). There was a statistically significant increase in the Mat-Pilates Group compared to the Control group in all dimensions except for emotional role functioning and vitality in the sub-dimensions of quality of life ($p<0.05$). Significant results were found in favor of the Mat-Pilates Group in all parameters except body composition measurements, fat mass and lean body mass ($p<0.01$). In all values of circumference measurements, fatigue severity and mood disorder measurements were significant in favor of the Mat-Pilates Group ($p<0.01$). There was no difference in sleep quality between the groups ($p>0.05$).

Conclusions: As a result, it was demonstrated that Mat-Pilates exercises applied for 8 weeks had positive effects on flexibility, anthropometric measurements, body compositions, the severity of fatigue, mood disorder, quality of life and sleep quality in healthcare providers.

Keywords: Workplace Based Exercises, fatigue severity, healthcare providers

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INTERPLAY BETWEEN PREDISPOSING FACTORS FOR IMPAIRED MASTICATION IN PATIENTS WITH STROKE

Ömer Dursun¹, Erhan Dincer², Burçin Durmuş,³ Ela Simay Zengin⁴

Aim: The aim of this study was to assess the interplay between central facial paralysis and dental characteristics for impaired mastication in sub-acute or chronic stroke patients.

Methods: 20 patients with stroke and 27 healthy individuals were included in the study. Oral health, oral hygiene, masticatory efficiency, central facial paralysis, and forward head posture of the participants were assessed by OHIP-14 questionnaire, self-prepared questionnaire, two-colored chewing gum test, labial commissure and craniocervical angle measurements. Stroke characteristics and dental characteristics were also assessed.

Results: Sociodemographic and physical characteristics of both groups were similar ($p>0.05$). Dental characteristics of patients with stroke which is characterized with high rate of complete denture wear and number of missing teeth, was significantly poor compared to healthy individuals ($p<0.05$). Masticatory efficiency of patients with stroke was nearly half of the healthy individuals ($p<0.05$). Forward head posture and facial paralysis values were similar in both groups ($p>0.05$).

Conclusions: Our study showed that, central facial paralysis gradually loses its effect on mastication and gives its place to dental characteristics in patients with stroke. Masticatory muscle activation increasing postural adaptations like forward head posture may not be preferred by patients with stroke. Preferred mastication side might be used to assess the severity or existence of central facial paralysis in patients with stroke.

Keywords: Facial paralysis, mastication, oral hygiene, stroke rehabilitation

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MUSCULOSKELETAL SYSTEM PROBLEMS DUE TO OCCUPATIONAL EXPOSURE IN MILITARY AND PHYSIOTHERAPY REHABILITATION APPLICATIONS

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The incidence of musculoskeletal problems was found to be high in military personnel serving in the army. The reasons include excessive repetitive movements, excessive weight of the carried equipment (ammunition, bags, boots, helmets, and night vision goggles, etc.), and insufficient endurance and strength training programs. In soldiers; low back pain, neck pain, and foot injuries are common musculoskeletal problems due to occupational exposure. All these factors together, the repetitive and long duration of the activity creates a preparatory effect for injury. In this situation, two basic strategies are important: prevention and treatment. Trunk exercise, spinal mobilization-manipulation, functional exercises (running, crawling, weight-bearing, dragging sandbags to improve the evacuation of the injured, etc.), whole body vibration therapy, proprioception exercises, coordination exercises, and yoga are physiotherapy and rehabilitation practices that have been applied and indicated to be effective in military personnel. Physiotherapy and rehabilitation techniques applied in musculoskeletal problems in soldiers reduce pain, increase muscle strength, reduce muscle spasm and increase the movement potential of tissues. As a result of all these effects, the success of the military missions performed by the personnel increases. In recent years, high-intensity interval training and high-intensity functional training exercise variations have been tried in military personnel. With these training methods, aerobic capacity and neuromuscular performance can be improved in a shorter time. In soldiers, it is at the forefront to treat musculoskeletal problems caused by occupational exposure and to keep the person working with high performance. In the light of all this information, physiotherapy and rehabilitation techniques applied to prevent and treat musculoskeletal problems of military personnel are very important to reduce the rate of morbidity in the army, increase performance and reduce psychosocial impact. At the end of our report, it is emphasized that the necessary policies should be established in this regard.

Keywords: Military personnel, musculoskeletal problems, prevention, treatment, physiotherapy and rehabilitation

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INVESTIGATION OF LOWER EXTREMITY PROPRIOCEPTION IN PATIENTS WITH RESTLESS LEGS SYNDROME: A CONTROLLED PILOT STUDY

Mustafa Ertuğrul Yaşa¹, Betül Kuz²

Aim: Restless legs syndrome (RLS) is a movement disorder in which patients experience a strong urge to move their legs or other limbs, accompanied by an unpleasant sensation in the affected limb at rest. There are still different opinions about the pathophysiology of the disease, and it is unclear why patients have the urge to move extremities. Proprioception allows the central structures to be aware of the instant position of the extremities in the context of impulses from peripheral proprio-receptors, as is already known. According to our theory, central structures initiate rhythmic limb movements to compensate decreased proprioceptive inputs with information from mechanoreceptors in RLS. From this point of view, this study was planned to examine the lower extremity proprioception in RLS patients.

Methods: The study included 14 RLS patients and 14 healthy individuals. Mental status was determined using Montreal Cognitive Assessment. Lower extremity proprioception was evaluated using the 'Lower Extremity Position Test'. In the proprioception measurement, measurements were repeated twice for 12 cm and 22 cm distances in each extremity, separately. The extremity proprioception score was calculated by taking the averages of deviations.

Results: The groups in our study were found to be similar in terms of gender distribution, age, body mass index and mental status ($p>0.05$). Besides, lower extremity proprioception test results were similar in the groups ($p>0.05$).

Conclusion: The results of our study showed that lower extremity proprioception sense of patients with RLS did not change compared to healthy controls. This result supports that central causes rather than peripheral changes may be more dominant in the pathophysiology of RLS disease. Further studies needed with larger sample size, using more objective tools that can measure small changes in proprioception.

Keywords: Restless legs syndrome, lower extremity, proprioception

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RADIOLOGICAL EVALUATION OF THE EFFECT OF INSPIRATORY MUSCLE TRAINING ON DIAPHRAGM FUNCTIONS IN EXTUBATION PERIOD: A CASE OF POST-OPERATIVE PNEUMONIA

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Aim: Inspiratory muscle training (IMT) is a therapeutic option for improving respiratory muscle strength in mechanically ventilated patients. We present a case who received IMT during the extubation period.

Methods and Results: A 59-year-old female patient was admitted to the Respiratory Intensive Care Unit (ICU) with postoperative pneumonia. Spontaneous breathing trial was performed on the 7th day of MV. Diaphragm thickness (DT), diaphragm excursion (DE) thickness fraction (TF), abdominal muscle thickness using ultrasonography (USG), diaphragm peak contraction (PCV) and peak relaxation velocity (PRV) were measured by Tissue Doppler Imaging (TDI). Maximum Inspiratory Pressure (MIP), Medical Research Council (MRC) and Physical Function Scale for Intensive Care (PFIT) was evaluated. Evaluations were repeated while the patient was in MV, on the day of extubation and at discharge from the ICU. A daily session of bronchial hygiene techniques, breathing exercises, coughing and gradual mobilization and 2 sessions of IMT at 30% intensity of MIP, with threshold pressure load, in 4 sets, a total of 30 breaths were applied. Hemodynamic instability did not develop during sessions. DE: 3cm, 3.3cm, 3.4cm; DT: 0.73cm, 0.75cm, 0.76cm; TF: 30.35%, 52.17%; 34.0cm/sn; PCV: 5.6cm/sn, 7.0cm/sn, 7.2cm/sn; PRV: 3.1cm/sn 4.3cm/sn, 5.1cm/sn was measured respectively. Internal oblique thickness: 0.30cm, 0.30cm, 0.27cm; external oblique thickness: 0.33cm, 0.23cm, 0.25cm; transversus abdominis thickness: 0.20cm, 0.23cm, 0.25cm; rectus abdominis thickness: 1.43cm, 1.43cm, 1.56cm and MIP was measured as 35 cmH₂O, 37 cmH₂O, 42 cmH₂O respectively. The MRC was determined as 40, 48 48; PFIT was found as 6, 8 10 respectively. The patient was discharged on the 11th day of length of stay ICU.

Conclusions: In our original case report, in which the effects of conventional physiotherapy and IMT on diaphragmatic functions were measured by USG and TDI, diaphragm thickness, excursion, PCV, PRV and MIP increased. It was interpreted that the applied therapeutic approach increased inspiratory muscle strength, improved diaphragm functions and safely supported the weaning period.

Keywords: Inspiratory muscle training, mechanical ventilator, diaphragmatic ultrasonography, diaphragmatic tissue doppler imaging, intensive care unit, respiratory physiotherapy.

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THE EVALUATION OF THE EFFECT OF COVID-19 PANDEMIC PROCESS ON CAREGIVER BURDEN IN CAREGIVERS OF PATIENTS WITH CHRONIC NEUROLOGICAL DISEASES

Sevgi Buket Baytak¹

Aim: Our study was planned to evaluate whether the pandemic process has an effect on the workload level and psychological burden of caregivers of individuals with chronic neurological diseases.

Methods: 50 patients with an average age of 39.08 ± 15.71 years, and 50 caregivers with an average age of 44.32 ± 11.54 years were included in the study. The independence levels of the patients were evaluated with the Barthel Index, the cognitive levels of the caregivers were evaluated with the Mini Mental Test. After obtaining the demographic information, the depression levels of the patients, and caregivers was assessed with the Beck Depression Scale, their sleep quality with the Pittsburg Sleep Quality Index, their quality of life with the SF-36 scale, their sexual life with the New Sexual Satisfaction Scale, and their mental well-being with the Warwick- Edinburgh Mental Well-Being Scale, caregivers' burden of care was assessed twice, to be answered according to the pre-pandemic, and post-pandemic period, with the Zarit Caregiver Burden Scale. Evaluations were performed by the research therapist.

Results: It was observed that the depression levels of patients ($p=0.00$), and caregivers ($p=0.00$) increased during the pandemic process, sleep quality of caregivers ($p=0.00$), and patient ($p=0.02$) decreased during the pandemic process. Their well-being decreased for patients ($p=0.01$), and for caregivers ($p=0.00$). It was determined that the patients' sexual quality of life decreased ($p=0.02$). On the other hand, it was determined that caregivers' burden of care increased ($p=0.00$). Sub-parameters of the SF-36 scale, physical function ($p=0.02$) physical role difficulty ($p=0.00$), and emotional role difficulty ($p=0.03$) decreased for caregivers.

Conclusion: In conclusion, we think that the well-being and psychological status of patients, and their caregivers are adversely affected due to the pandemic, and that psychological support services for individuals with chronic neurological diseases should be included in health policies during the pandemic process.

Keywords: Caregiver, COVID-19, pandemic, caregiver burden

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DOES THE MENTAL FATIGUE CREATED BY MOTOR IMAGERY EFFECT UPPER EXTREMITY FUNCTIONS?

Ozan Bahadır Türkmen¹, Canan Demir², Burçin Akçay³

Aim: The literature has indicated that mental fatigue created in different ways may reduce lower extremity endurance. However, there was no study of how mental fatigue affected upper extremity endurance. Therefore, the study aims to investigate the effect of mental fatigue generated by motor imagery on upper extremity functions.

Methods: This study included 12 (20.83 ± 0.83 years) university students. The study evaluated the isometric elbow flexion strength, hand grip strength, reaction time, nine-hole peg test, position and tactile sensation, two-point discrimination, and upper extremity endurance. 50-minute motor imagery created mental fatigue. The assessments were repeated before and after mental fatigue with a 1-week break. To avoid performance differences on testing days due to variability in circadian rhythms, tests were scheduled at the same time of the day.

Results: Only isometric elbow flexion strength was found to decrease significantly in dominant limb performance after mental fatigue ($p < 0.05$). The nondominant extremity was statistically reduced in isometric elbow flexion strength, nine-hole peg test, and two-point discrimination ($p < 0.05$). No significant difference was found in other upper extremity functions ($p > 0.05$).

Conclusions: The results of this study suggest that mental fatigue created by motor imagery can reduce the strength and performance of the hand and that the reduction may vary according to the dominance of the hands. Studies with a larger sample group are needed.

Keywords: Mental fatigue, upper extremity, motor imagery

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THE EFFECTS OF TELEREHABILITATION ON FUNCTIONAL CAPACITY AND FATIGUE IN COVID-19 SURVIVORS: A RANDOMIZED CONTROLLED PRELIMINARY STUDY*

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Aim: COVID-19, caused by the coronavirus SARS-CoV-2 virus, is a respiratory disease condition with different clinical features and causing multiple system effects. Fatigue and decrease in functional capacity are among the symptoms that are reported to continue after the acute period of COVID-19. This study aims to investigate the effects of telerehabilitation on functional capacity and fatigue in COVID-19 survivors.

Methods: A total of 18 COVID-19 survivors, were randomly divided into two groups as telerehabilitation group (TRG) (n = 9, 47.44±3.99 years) and control group (CG) (n = 9, 40.00±4.93 years). The physical and demographic characteristics of the participants were recorded. Functional capacity was evaluated with the 6-Minute Walk Test (6-MWT) and fatigue levels were evaluated with the Chalder Fatigue Scale (CFQ). Participants in the telerehabilitation group (TRG) underwent a total of 18 sessions of telerehabilitation, for 6 weeks, 3 days a week, approximately 50 minutes a day, accompanied by a physiotherapist. Sessions made over the internet-based video call program consisted of breathing exercises, peripheral muscle strengthening and balance exercises. The participants in the CG didn't receive any rehabilitation program. Participants were evaluated at the beginning and end of the 6 weeks.

Results: The functional capacities and fatigue levels of the groups were similar at the beginning of the study (p>0,05). At the end of 6 weeks, the mean percentages of 6-MWT distance relative to the expected value were significantly higher in TRG than in CG (p<0.05) and fatigue level decreased significantly in TRG (p<0,05).

Conclusions: In our study, it has been shown that telerehabilitation program can provide significant improvements in functional capacity and fatigue level in COVID-19 survivors. We recommend applying telerehabilitation program to COVID-19 survivors because of its feasibility, safety and positive results in physical functions that affect activities of daily living.

Keywords: COVID-19, telerehabilitation, functional capacity, fatigue.

* This research has been made from a part of continuing Research Assistant Canan Demir's doctoral dissertation (Dissertation first supervisor: Assist. Prof. Dr. Cihan Caner Aksoy, Dissertation second supervisor: Assist. Prof. Dr. Gülhan Yılmaz Gökmen).

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INVESTIGATION OF THE RELATIONSHIP BETWEEN FATIGUE AND SLEEP QUALITY IN E-ATHLETES: PILOT STUDY

Melike Sümeyye Özen¹, Eren Özen², Gülhan Yılmaz Gökmen³

Aim: The popularity of e-sports and the number of e-athletes have been increasing in recent years. Long-term computer use of e-athletes causes various problems. The study aims to examine the relationship between fatigue and sleep quality in e-athletes.

Methods: 55 licensed e-athletes participated in the study. Demographic information (such as age, gender) of e-sportsmen included in the study and questions related to e-sports were asked. The overall level of fatigue perceived by e-athletes was assessed with the Modified BORG Scale (MBS), Sleep quality with the Pittsburgh Sleep Quality Index (PSQI) and daytime sleepiness with the Epworth Sleepiness Scale (ESS). Spearman Correlation Analysis was used for statistical analysis.

Results: The mean age of e-athletes was 22.05±1.63 years. The vast majority of e-athletes were men (47 men/8 women). 49 of the e-athletes participated in team games and 6 of them participated in individual competitions. 37 of the e-athletes were preparing for the competitions at their own home and 18 of them at the gaming house. The fatigue severity of the e-athletes according to MBS was 4.80±2.62. PSQI values of e-athletes were 6.04±2.84 and ESS values were 4.98±3.63. A moderately statistically significant positive correlation was found between MBS values and PSQI values ($r=0.344$, $p=0.01$) and between MBS values and ESS values ($r=0.559$, $p<0.001$).

Conclusions: In this study, it was observed that as the severity of fatigue increased in e-athletes, daytime sleepiness increased and sleep quality decreased. The correlation between fatigue severity and sleep quality may affect the performance of e-athletes. For this reason, physiotherapists should play an active role in the evaluation and treatment of factors that may affect the performance of e-athletes.

Keywords: E-athletes, fatigue, sleep quality, daytime sleepiness.

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DOES PATIENT-SPEISIFIC FUNCTIONAL SCALE REFLECT THE SUCCESS OF REHABILITATION IN PATIENTS WITH LUMBAR DISC HERNIATION

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Aim: Physical therapy is an important component in the treatment of lumbar disc herniation (LDH). Patient-Spesific Functional Scale (PSFS) is an assessment tool to addresses issues that are usually missed in other measurements. However, it is controversial whether it reflects the success of rehabilitation program. The aim of this study is to evaluate whether PSFS reflect rehabilitation process in patients with LDH.

Methods: A total of 17 LDH patients (13 women) were included. The patients were asked to complete the PSFS for function and Visual Analogue Scale (VAS) for pain before and after two-month exercise program. The overall PSFS score was an average of three activities scores. The absolute and relative change of PSFS and VAS scores were calculated. The Wilcoxon Signed Rank Test was used for the calculation of the difference of PSFS and VAS scores of pre and post-exercise program, the relationship of the changes of PSFS and VAS scores from the baseline was assessed by Spearman's rho correlation coefficient.

Results: The median age was 39 years (IQR 25/75: 27.50/46 years) for the patients. The baseline scores of the scales was demonstrated in table 1. While the pain scores were decreased, function scores were improved after the program ($p<0.005$). The absolute and relative change of PSFS, VAS activity and VAS rest score were showed in table 2. There were significant relationships between percentage change of PSFS scores and percentage change of VAS activity and rest ($p=0.045$, $r=0.523$, $p=0.043$, $r=0.529$).

Conclusions: The significant relationships between the percentage change in PSFS score and the percentage change in pain scores may indicate PSFS score is a determinant of the rehabilitation process. PSFS could be one of the standardised measurements to be used in patients with lumbar disc herniation.

Keywords: Lumbar disc herniation, patient-spesific function, rehabilitation

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SATISFACTION OF BLADDER CONTROL TRAINING IN WOMEN

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Aim: The aim of our study is educate to women on urinary incontinence management and to evaluate the satisfaction of the education provided.

Methods: Women residing in Mamak district were included in our study. A 2-hour education was given to women in order to raise awareness of the pelvic floor muscles, to emphasize the role of the physiotherapist in the management of urinary incontinence, and to describe the responsibilities of the individual in maintaining pelvic health. This education covers the prevalence, etiology, evaluation and treatment methods of urinary incontinence. The education was given by a physiotherapist who is an M.Sc. of pelvic health, avoiding medical terminology, and supporting the narratives with anatomical models and visuals. Examples of lifestyle changes, pelvic floor muscle training, and stabilization exercises were demonstrated as possible as. In the evaluation of education satisfaction, a questionnaire consisting of 8 questions prepared by the researchers was used. The questionnaire is evaluated with a 5-point Likert type scale and the total score ranges from 8-40. An increase in the score indicates an increase in educational satisfaction.

Results: The mean score of 30 women (37.79 ± 9.13 years, minimum=20 years, maximum=59 years) included in our study was 36.43 ± 4.69 , and it was found that they were very satisfied with education. 93.3% of the women who participated in the education stated that the scope and content of the education was sufficient, 86.7% of them reported that education materials were sufficient and 93.3% of them wanted these educations to be repeated.

Conclusions: Consequently, it has been shown that the satisfaction of urinary incontinence education organized for women is high and there is a need for such awareness education. In future studies, it is recommended that the effects of awareness education on urinary incontinence be evaluated with objective measurement methods and studies with higher number of participants.

Keywords: Incontinence, women's health, education, satisfaction

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THE EFFECT OF SENSORY LOSS AND VISION PROBLEMS ON FATIGUE IN MULTIPLE SCLEROSIS: PILOT STUDY

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Aim: This study aims to examine the effects of sensory loss and vision problems on fatigue in people with multiple sclerosis (pwMS).

Methods: 32 pwMS participated in the study. Information about age, gender, sensory loss (pins and needles, tingling, numbness, etc.), and vision problems (vision loss, double vision, blurred vision, etc.) were obtained. The level of disability was evaluated with the Expanded Disability Status Scale (EDSS), and the level of fatigue was evaluated with the Modified Fatigue Impact Scale (MFIS).

Results: The mean age of pwMS was 43.62±12.34 years, and the mean EDSS was 2.53±1.6. The vast majority of pwMS were women (21 women/11 men). Of the pwMS, 19 had a sensory loss and 12 had vision problems. A statistically significant difference was found between the MFIS psychosocial subscale scores of those with and without vision problems ($p=0.014$). In addition, 58.3% ($n=7$) of individuals with vision problems and 47.4% ($n=9$) of those with sensory loss had a total MFIS score higher than the cut-off value of 38. A statistically significant difference was found between the MFIS physical and psychosocial subscale scores and total scores of those with and without a sensory loss ($p=0.30$, $p=0.025$, $p=0.044$).

Conclusions: Studies have reported that fatigue occurs in 50-80% of pwMS. Our study found that fatigue levels were higher in individuals with sensory loss and vision problems. Therefore, sensory loss and vision problems should not be ignored in the evaluation and treatment of pwMS. Future studies that include people with MS from all types of MS and objectively assess vision problems and sensory loss are needed.

Keywords: Multiple sclerosis, sensory loss, vision problems, fatigue.

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COMPARISON OF SOME PHYSICAL FITNESS AND PSYCHIATRIC SYMPTOMS IN HEALTHY AND SEXUALLY ABUSED CHILDREN

Tuğçe Bilgiç¹, Ebru Kaya Mutlu², Caner Mutlu³

Aim: The aim of our study was to determine whether there is any relationship on some findings related to physical parameters such as flexibility, endurance and psychiatric symptoms like depression and anxiety between sexually abused children (SAC) and healthy group. As a secondary outcome, we also investigated the physical activity and life quality levels among those groups.

Methods: The study was planned as 2 groups and 62 cases were included. Groups were stated as SAC (group1) and control (group2). For physical fitness; endurance (Sit-up and Push-Up Tests), flexibility (Trunk Lateral Flexion Test) and for psychiatric symptoms; depression (Children Depression Inventory) and anxiety (The Screen for Child Anxiety Related Disorders) were evaluated. Additionally, physical activity (The Physical Activity Questionnaire for Children) and life quality levels (*Quality of Life Scale for Children*) were assessed.

Results: As a result; noticeable findings were observed for many parameters. In comparison between groups; group1 was found superior to control group in depression and anxiety levels ($p<0,005$). In the sit-up, push-up, lateral flexion tests and in quality of life scale, there were also significant differences between groups ($p<0,005$). However, in physical activity questionnaire, there were no significant differences between groups ($p>0.05$).

Conclusions: In conclusion; it was obviously expected that the level of post traumatic stress symptoms such as depression and anxiety were more severe in SAC. In our study it was also proven that the physical fitness and life quality of SAC were significantly lower. Moreover, there were no significant differences in physical activity levels between the groups. From this result, it can be deduced that the physical activities of the SAC continue, but they show resistance to the tests related to physical fitness. Therefore, it may conclude some musculo-skeletal disorders in the long term and in order to prevent this, aerobic exercises can be added to the treatment.

Keywords: Sexual abuse, children, depression, physical activity, muscular endurance, life quality

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THE RELATIONSHIP OF WORKING TIMES AND POSTURE IN DENTISTS

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Aim: Working posture in the dentistry profession includes a long-term static posture that is different from the ideal posture. Postural changes may develop due to the cumulative physical load and may pose a high risk for musculoskeletal diseases. The aim of this study is to examine the relationship between posture and active working time in dentists.

Methods: 61 dentists, 35 female and 26 male, who were actively working, participated in the study. Participants were divided into 3 groups according to their working years as 0-10 years, 11-24 years, and 25 years or more working dentists. Demographic information and daily working hours were recorded. Posture assessment was performed using the New York Posture Assessment Method (NYPAM). Kruskal Wallis, Mann Whitney U tests and Bonferroni correction from post hoc test statistics were used to analyze the differences between groups.

Results: The mean age of the participants (n=61) was 42.80±10.49 years. In the comparison of the NYPAM results of the groups according to the active working years of the dentists, it was found that the postural analysis scores decreased significantly as the working year increased (p<0.005). There was no significant relationship between daily working hours and NYPDY scores (p>0.005).

Conclusions: According to the results obtained, as the time spent by dentists in the profession increases, it has been found that posture is affected. We think that knowing the posture changes due to working time will be beneficial for dentists to prevent occupational cumulative traumas by paying attention to physical ergonomics.

Keywords: Dentist, posture, working time

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EFFECTIVENESS OF OROFACIAL MANUAL THERAPY IN PATIENTS WITH TEMPOROMANDIBULAR DISORDERS: A PILOT STUDY

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Aim: Aim of this study is to determine the effectiveness of orofacial manual therapy on Temporomandibular Disorders (TMD) symptoms in patients with TMD.

Methods: Twenty patients with TMD who participated in the study were randomly divided into two groups. Conventional physiotherapy program in the first group (n=10), orofacial manual therapy in addition to the first group in the second group (n=10) were applied. Conventional physiotherapy consisted of patient education and home exercises. Soft tissue and joint mobilization, muscle energy technique, fascia mandibularis release, occipital release and ligament therapy were applied as orofacial manual therapy. Pain intensity and threshold, joint range of motion, functionality and sleep quality were evaluated by using Visual Analog Scale, digital algometer, ruler, Helkimo Index, Pittsburgh Sleep Quality Index respectively. The patients were treated for a total of 10 weeks, with 10 sessions once a week. The patients were evaluated twice, at the beginning and at the end of the treatment.

Results: The data obtained in the study showed that the all parameters had significant improvements in both group ($p<0.05$). Second group was superior to first group for improving all outcome measurements at 10 weeks ($p<0.05$).

Conclusions: It has been concluded that adding orofacial manual therapy to conventional physiotherapy is more effective in patients with TMD. It is thought that the combination of conventional physiotherapy and manual therapy program will increase the effectiveness of the treatment.

Keywords: Temporomandibular disorder, pain, manuel therapies, exercise

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THE EFFECTS OF ONLINE YOGA PROGRAM ON BODY BALANCE AND PSYCHOSOCIAL FACTORS IN UNIVERSITY STUDENTS

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Aim: The COVID-19 pandemic has caused chronic health problems, inactive lifestyle and the psychological impacts of many individuals. One of the groups who were affected by the pandemic and confronted with physical and psychological status are university students. Yoga practice is an approach that has benefits not only physically but also mentally and is started to be applied online with the effect of the pandemic. It was aimed to investigate the effects of a online yoga program during Covid-19 pandemic on body balance and psychosocial factors in university students.

Methods: Forty-one female undergraduate students aged between 20-22 years were included and grouped randomly as yoga exercise group (n=21) and control grup (n=20). The balance and psychosocial assesment were performed by The Balance Master Balance System (NeuroCom, Clackamas, Ore., USA) and by Beck Depression Scale (BDS) & Perceived Stress Scale (PSS) before and after a six-week twice-weekly yoga program. The body balance assessment was performed by tests of Limit of Stability (LOS), Weight bearing / Squat and Unilateral stance.

Results: The groups were similar in terms of demographic features and initial evaluation parameters ($p>0,05$). Six weeks later, the LOS parameters of End Point Excursion (%), Maximum Excursion (%), and weight bearing distrubiton during squat at 30 & 60 degree (%) of dominant side knee flexion in yoga group were higher than control group ($p<0,05$), and no statistically difference was detected in BDS and PSS scores between groups ($p>0,05$).

Conclusions: According to the findings, it can be concluded that 6-week online yoga program may have positive effects on the body balance, especially during a physically inactive period due to the pandemic. Further studies are needed to investigate the effect of online yoga practice longer than 6 weeks on psychosocial parameters will be examined in more detail and compared with face-to-face yoga practice.

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THE EFFECT OF TOILET TYPE USED ON LOWER URINARY SYSTEM SYMPTOMS, SEVERITY, AND PHYSICAL ACTIVITY: PRELIMINARY STUDY

Gizem Türkmen¹, Eren Özen², Ebru Kaya Mutlu³

Aim: This study was conducted to determine the effect of type of toilet use among individuals on lower urinary symptoms, severity, and physical activity.

Methods: Sociodemographic information, toilet preferences, toilet habits, and lower urinary tract symptoms and physical activity levels were collected prospectively using Google forms. Participants' lower urinary tract symptoms were assessed using the validated "International Consultation on Incontinence Questionnaire-Male Lower Urinary Tract Symptoms" (ICIQ-MLUTS) questionnaire for men and the "International Consultation on Incontinence Questionnaire-Female Lower Urinary Tract Symptoms" (ICIQ-FLUTS) for women. For 13 symptoms, prevalence (0–4) and discomfort (0–10 scale) were scored. Overall bladder-related quality of life (scale 0–3) was also assessed. Severity was measured with the Incontinence Severity Index (ISI), and physical activity levels were measured with the International Physical Activity Questionnaire (IPAQ-Short Form). Participants were divided into two groups, the first group using European- style toilets (n =122) and the second group using Turkish-style toilets (n=52). An Independent sample t-test was used to compare groups.

Results: A total of 174 people (83.6% female, 16.4% male) responded. The mean age was 28.5. There was no difference between the groups with lower urinary symptom total score ($p>0.05$), the degree of perception of each symptom ($p>0.05$), ISI, and IPAQ score ($p>0.05$).

Conclusions: In our study, where we could not find the effect of toilet choice, we think it would be correct to repeat the results by considering the young participants and other underlying factors.

Keywords: Lower urinary system, toilet type, physical activity, men, women

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THE RELATIONSHIP BETWEEN THE LEVELS OF DEPRESSION AND HOPELESSNESS OF PHYSIOTHERAPY AND REHABILITATION STUDENTS AND THE LEARNING OUTCOMES AND THE SUCCESS OF THE ELECTROTHERAPY COURSE

Fatma Nur Yılmaz¹, Ebru Kaya Mutlu², Melike Sümeyye Özen³, Esra Keskin⁴, Şule Keçelioglu⁵, Canan Demir⁶

Aims: The study aims to examine the relationship between the depression and hopelessness levels of the students of the Department of Physiotherapy and Rehabilitation, who took the applied electrotherapy course online during the pandemic period, and the learning outcomes of the course and the course success.

Methods: 50 volunteer 4th-grade students who took the Electrotherapy course online in the 2nd year and passed the course participated in the study. After questioning the demographic information of the students, Beck Depression Inventory, Beck Hopelessness Scale, Course Learning Outcomes Information Collection Form, and Course Success Evaluation Form were applied online via Google Forms.

Results: The mean age of 39 female and 11 male students participating in the study was 22.44 ± 0.70 years. The students' Beck Depression Inventory mean score was 14.34 ± 8.12 and Beck Hopelessness Scale mean score was 8.64 ± 5.23 . The average course success score of the students was 30.4 ± 13.24 points out of 100, and the level of reaching the learning outcomes of the course was 14.92 ± 4.06 out of 25. A negative and weak significant correlation was found between the Beck Depression Inventory and the Beck Hopelessness Inventory and the level of reaching the learning outcomes of the course (respectively, $p = 0.024$ $r = -0.320$, $p = 0.037$ $r = -0.296$). However, no significant correlation was found between the Beck Depression Inventory and Beck Hopelessness Scale and the course achievement score ($p < 0.05$).

Conclusions: In our study, we determined that as the depression and hopelessness levels of the students increased, their level of reaching the learning outcomes of the electrotherapy course decreased. Although it has been shown in the literature that it affects the learning process, no relationship between depression and hopelessness found in our study.

Keywords: Depression, hopelessness, learning outcomes, course score

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THE EFFECTS OF MODE OF DELIVERY ON LOWER URINARY SYSTEM SYMPTOMS, INCONTINENCE SEVERITY AND PHYSICAL ACTIVITY: PILOT STUDY

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Aim: This study aims to examine the effects of mode of delivery on lower urinary system symptoms, incontinence severity and physical activity.

Methods: The study included 66 female aged between 18-80 years. Sociodemographic information, mode and number of delivery, and lower urinary tract symptoms and physical activity levels were collected using Google forms. Participants' lower urinary tract symptoms were assessed using the International Consultation on Incontinence Questionnaire Female Lower Urinary Tract Symptoms (ICIQ-FLUTS). Urinary incontinence severity was measured with the Incontinence Severity Index (ISI), and physical activity levels were measured with the International Physical Activity Questionnaire (IPAQ-Short Form). Participants were divided into 2 groups according to the mode of delivery. An Independent sample t-test was used to compare groups.

Results: The mean age of females was 43.58±15.80 years. 51.5% of the participants had cesarean delivery (n=34) and 48.5% had normal delivery (n=32). There was no difference between the groups in terms of lower urinary system symptoms, incontinence severity and physical activity levels (p>0.05). However, a significant difference (cesarean delivery<normal delivery) was found between the groups in terms of the number of delivery (p=0.008).

Conclusions: In our study, the mode of delivery had no effect on lower urinary tract symptoms, urinary incontinence severity and physical activity. This result may be due to the small number of individuals participating in the study and our wide age range. However, the number of delivery of the participants who gave normal delivery was found to be higher than those who had cesarean delivery. Since cesarean delivery can be more traumatic than normal delivery, it may have affected the number of delivery of women. Comprehensive studies involving more homogeneous groups and more individuals are needed in the future.

Keywords: Mode of delivery, number of delivery, lower urinary system symptoms, incontinence severity, physical activity.

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IS A RELATIONSHIP BETWEEN RESPIRATORY FUNCTIONS AND MUSCLE ENDURANCE IN FEMALE?

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Aim: Respiratory functions are realized by the forces of respiratory muscles and peripheral and core muscles. In particular, the transversus abdominus, one of the core muscles, acts like the diaphragm, increases abdominal pressure, and supports the stabilization of the trunk. Therefore, we aimed to examine the relationship between respiratory functions and muscle endurance in female professional basketball players.

Methods: 14 young professional female basketball players aged between 14-20 were included in the study. The participants' respiratory functions and muscle strength (maximal inspiratory and expiratory pressure (MIP MEP)) have been evaluated with the COSMED-Pony FX model portable spirometer. The best results from the three-repeat tests were recorded for each participant. In addition, the participants' core muscle activations and endurance were evaluated with the Neurotack-EMG device in the Right and Left Lateral Bridge Test, Modified Biering-Sorenson Test, Trunk Flexors Endurance Test, and 'Prone Bridge.' Each test was repeated twice, and the mean values were recorded for analysis.

Results: As a result of the analyses between the Trunk Flexors Endurance Test (time), Left Lateral Bridge Test (average), and FVC (r:0.605, p:0.022; r:0.541, p:0.046, respectively); A correlation was found between the 'Prone bridge' Test (time) and FEV1 (r:0.558, p:0.038). In addition, between the Left Lateral Bridge Test (time) and the Modified 'Biering-Sorenson Test (time), and PEF (r:0.536, p:0.048; r:0.604, p:0.022, respectively) and Trunk Flexors. A statistically significant relationship was found between the Endurance Test (%MVC) and 'Prone bridge' Test (%MVC) and FEF 25-75% (r:0.599, p:0.023, r:0.569, p:0.034, respectively). There was no statistically significant relationship between respiratory muscle strength and muscle endurance.

Conclusions: It was determined that there was a relationship between respiratory functions and the activity and endurance of some core muscles. For this reason, we think that muscle endurance training will be beneficial in improving the performance of athletes by affecting respiratory functions.

Keywords: Respiratory function, muscle endurance, basketball players

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UPPER EXTREMITY BALANCE AND THROWING PERFORMANCE IN FEMALE BASKETBALL PLAYERS

Esra Keskin¹, Ozan Bahadır Türkmen², Mustafa Rüstemoğlu³, Ebru Kaya Mutlu⁴

Aim: Basketball is a sport that mainly focuses on executing passing techniques, including running, jumping, and throwing functions. Unilateral or bilateral throwing activities require functional skill, shoulder stability, and mobility. Therefore, we aimed to investigate the correlation between upper extremity balance and throwing performance in female basketball players.

Methods: 16 participants who are players in Bandırma Female Basketball U-16, U-18, and professional teams were included in the study. Y Balance Test- Upper Quarter (YBT-UQ) was used for upper extremity balance evaluation, and the Functional Throwing Performance Index (FTPI) was used for performance evaluation. YBT-UQ was performed by assessing performance in medial, inferolateral, and superolateral reach directions normalized to upper extremity length together with a composite score of the mean of all access directions. For the FTPI, a target 30.48 × 30.48 cm square is marked on a wall 1.22 m high from the floor, and the participant standing at a 4.57 m distance is asked to throw the ball (50.8 cm circumference) toward the target. After a familiarisation session of 8 throws, FTPI is calculated by dividing the number of throws within the target during 30 seconds by the total number of throws. FTPI is a reliable tool (ICC = 0.81). Spearman Correlation Analysis analyzed the correlation between FTPI and YBT-UQ.

Results: The mean age of the 16 participants in the study was 16.81±2.40. All participants used their dominant side dominantly. As a result of statistical analysis, a significant correlation was observed between dominant side YBT-UQ and FTPI ($r = .539$; $p = 0.031$), while there was no statistically significant difference between non-dominant side composite YBT-UQ and FTPI ($r = .252$; $p = 0.347$).

Conclusions: There is a relationship between upper extremity balance and performance in basketball players who frequently use throwing activity, and it can be suggested to include balance training to increase performance in training.

Keywords: Basketball, Y Balance Test- Upper Quarter, Functional Throwing Performance Index

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THE EFFECT OF PHYSIOTHERAPY AND REHABILITATION APPLIED IN SPECIAL EDUCATION CENTER ENVIRONMENT ON TRUNK PARAMETERS IN CHILDREN WITH UNILATERAL CEREBRAL PALSY

Derya Azim¹, Burcu Ersöz Hüseyinsinoğlu²

Aim: The aim of our study was to investigate the effects of individual physiotherapy and rehabilitation interventions applied in a special education center environment on trunk control, sitting balance and sitting function in children with Unilateral Cerebral Palsy (UCP).

Methods: Children with USP who regularly attend a special education and rehabilitation center in Istanbul were included in the study. Before and after the routine physiotherapy and rehabilitation application, which lasted 2 days a week for 8 weeks, the evaluations were made by the physiotherapist blinded to the treatment. Trunk control was evaluated with the Trunk Control Measurement Scale (TCMS), trunk sway in sitting position was evaluated with the Becure Balance Assessment System (BDAS), and sitting function was evaluated with the Gross Motor Function Measure (GMFM) sitting subsection.

Results: The study included 39 children with UCP, 23 girls and 16 boys. The mean age of the children was 10.64 ± 2.295 . The pre-treatment TCMS score was 45.12 ± 3.29 , and the post-treatment TCMS score was 45.69 ± 5.83 . There was no significant difference between pre- and post-treatment GKES scores ($p > 0.05$). There was a significant difference in the centers of gravity in the sitting position of the children before and after the treatment. After the treatment, the centers of gravity approached the zero point ($p < 0.05$). The pre-treatment GMFM score was 45 ± 9.04 , and the post-treatment GMFM score was 47 ± 7.35 . There was a significant difference in GMFM scores before and after treatment ($p < 0.05$).

Conclusion: As a result of eight weeks of individual physiotherapy and rehabilitation applied in children with USP, no significant improvement was observed in the quality of trunk control, but trunk function improved. This result suggested that the design of trunk training content in children with USP should be investigated.

Keywords: Cerebral Palsy, Trunk Control, Trunk Function

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MULTIDISCIPLINARY PERSPECTIVE ON POLIOMYELITIS AS A RARE CASE: A CASE REPORT

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Aim: Poliomyelitis is an acute, infectious disease caused by a group of neurotrophic viruses, in which the virus involves the anterior horn cells of the spinal cord and certain motor nuclei of the brain stem, causing paralysis of the muscles. In our study, the multidisciplinary treatment results of 1 patient with atypical bilateral involvement who received virus from another infant after vaccination due to suppression of immune immunity were presented.

Methods: In the first evaluation of the case who applied for physiotherapy at the age of 2, it was determined that there was limited muscle activity against gravity in the lower and upper extremity where he could not independently perform rotation and sitting activities. The patient was evaluated with Gross Motor Function Measurement (GMFM) before and after treatment. The case was followed up between 2015 and 2017 a home program in addition to a 3 days a week with 45-minute physiotherapy program. In order to support motor development, the treatment program included a neurodevelopmental treatment approach, range of motion and muscle strengthening exercises, as well as orthoses of the spine and lower extremities.

Result: After two years of physiotherapy, the total muscle test score of the trunk and lower extremities increased from 17 to 30 points and the GMFM A and B section score increased from 15 to 47 points according to the manual muscle test. After physiotherapy applications and hip operation, the patient has reached the level of being able to hold his head in every position, to turn independently, to sit and to stand with the help of the device.

Conclusions: Poliomyelitis, which is presented as a rare case, increased muscle strength and functionality with a two-year physiotherapy and operation process with a multidisciplinary approach and participation in daily life was ensured.

Keywords: Poliomyelitis, physiotherapy and rehabilitation, multidisciplinary approach

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EXAMINATION OF FACTORS AFFECTING PAIN IN WOMEN WITH KNEE OSTEOARTHRITIS

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Aim: This study aimed to evaluate the pain that occurs at rest, during activity, and at night in women with knee osteoarthritis and examine the factors affecting the severity of pain.

Method: Seventy-five female patients over 40 years with right-dominant knee osteoarthritis were included in the study. Kellgren and Lawrence Classification was used for osteoarthritis grading. The pain intensity of the participants at rest, during activity, and at night was questioned using the Visual Analog Scale (VAS). Hip and knee range of motion (ROM) was evaluated with a digital goniometer (Baseline Evaluation Instrument®, Fabrication Enterprises, Inc.). Isometric muscle strength of iliopsoas, gluteus medius, quadriceps femoris, and hamstring were measured using a hand-held dynamometer (Lafayette Instrument®, Lafayette, Inc.). The relationship between VAS, ROM, and muscle strength was calculated using linear regression analysis (stepwise method).

Results: The mean age of the participants was 59.67±9.53 years, and the mean body mass index was 31.11±4.95 kg/m². Twelve participants (16%) had bilateral involvement. 33% of the participants had Stage 2, 57.3% had Stage 3, and the rest had Stage 4 osteoarthritis. The mean VAS-Rest score was 1.86±2.42, and the mean VAS-Activity score was 5.35±2.9. The mean VAS-Night score was 2.68±2.88. As a result of regression analysis, there were significant associations between VAS-Rest score and hip flexion ROM (β : -0.247, 95%CI: -0.104- (-0.006), p: 0.028) and quadriceps femoris muscle strength (β : -0.261, 95%CI: -0.347- (-0.030), p: 0.02). A significant association was found between VAS-Activity score and hip flexion ROM (β : -0.358, 95%CI: -0.153- (-0.037), p: 0.002). Similarly, VAS-Night score and hip flexion ROM were significantly associated (β : -0.255, 95%CI: -0.127- (-0.008), p: 0.027).

Conclusion: Our findings showed that decreased hip flexion ROM and quadriceps muscle strength affected the pain at rest in female patients with knee osteoarthritis. Also, significant associations were found between night pain, pain during activity, and decreased hip flexion ROM. Adding interventions to increase hip flexion ROM and quadriceps muscle strength to the rehabilitation program of female patients with knee osteoarthritis may reduce pain severity.

Keywords: Pain, range of motion, muscle strength, regression, osteoarthritis.

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ARE THE EFFECTS OF BASIC BODY AWARENESS THERAPY ON MUSCULOSKELETAL PROBLEMS DIFFERENT BETWEEN THE GENDER?

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Aim: The aim of the study is to compare the effects of Basic Body Awareness Therapy on musculoskeletal problems between genders.

Methods: A total of 18 university students, female (n=9) and male (n=9), with a mean age of 20.89 (0.96) years, participated in the study. Basic Body Awareness Therapy was applied to the students once a week for 12 weeks. The musculoskeletal problems of the students were evaluated with the Cornell Musculoskeletal Discomfort Questionnaires (CMDQ).

Results: In the analysis between the groups, there was no statistically significant difference between the genders before and after Basic Body Awareness Therapy ($p>0.05$). In within-group analysis, there were statistically significant differences in total CMDQ score and CMDQ lower back part of female students ($p=0.012$, $p=0.027$ respectively), and musculoskeletal problems improved after Basic Body Awareness Therapy. Although the musculoskeletal problems of some body parts of male students improved, there was no statistically significant difference before and after Basic Body Awareness Therapy ($p>0.05$).

Conclusions: In both genders, Basic Body Awareness Therapy was found to be effective in improving the general musculoskeletal problems but did not make a difference between the genders. It was thought that Basic Body Awareness Therapy could be effective in improving the musculoskeletal problems in both genders, but it could be more effective in female students than male students, especially in terms of lower back problems and the general musculoskeletal problems. Studies in which the effect of Basic Body Awareness Therapy on musculoskeletal problems in populations of different age groups are compared between genders can be designed.

Keywords: Basic body awareness therapy, musculoskeletal, university students

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DO MANUAL AND FINGER DEXTERITY CHANGE ACCORDING TO THE MODIFIED HOEHN AND YAHR STAGES IN EARLY-STAGE PARKINSON'S PATIENTS? PILOT STUDY

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Aim: The aim of the study is to compare manual and finger dexterity according to modified Hoehn and Yahr (H&Y) stages in early-stage Parkinson's patients.

Method: A total of 28 patients with stages 1.0-1.5 (n=14) and stages 2.0-2.5 (n=14) according to the Modified Hoehn and Yahr (H&Y) Scale were included in the study. The mean age of the patients was 65.54 (9.81) years and their right hand was dominant. Manual dexterity was evaluated with the Minnesota Manual Dexterity Test and finger dexterity was evaluated with the 9-Hole Peg Test in patients.

Results: There were differences in the involving left-hand use subtests of the Minnesota Manual Dexterity Test and the 9-Hole Peg Test between patients with modified H&Y stages 1.0-1.5 and stages 2.0-2.5 (p=0.015, p=0.043, respectively). The manual and finger dexterity of the patients with stages 1.0-1.5 were better than the patients with stages 2.0-2.5.

Conclusions: The difference in manual and finger dexterity in early-stage Parkinson's patients according to the modified H&Y stages suggested that the loss of manual and finger dexterity may be more with the progression of the disease. Giving patients exercises and functional activities for manual and finger dexterity from the earliest stage may be important in terms of preventive rehabilitation. In addition, the fact that the manual and finger dexterity of the left hand of patients with right-handed dominance are affected, reveals the necessity of not only the dominant hand but also the non-dominant hand to be taken into consideration and included in the treatment program. More studies on this subject are recommended in the future.

Keywords: Hand, early stage, modified Hoehn and Yahr stages, Parkinson's patients

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LIFESTYLE HABITS OF PROFESSIONAL ESPORTS PLAYERS: A DESCRIPTIVE STUDY

Doğukan Tongar¹, Gülfidan Tokgöz², Sahra Şirvan Can³, Ayşe Zengin Alpözgen⁴

Aim: Esports, are defined as video games played competitively, is similar to traditional sports with its physical and mental requirements the literature has limited recommendations for providing health services to esports players. Therefore, this study aims to determine the lifestyle habits of professional esports players.

Methods: The study included 26 professional esports players actively working on esports team. The self-administered questionnaires were applied with a face-to-face method. The body mass index (BMI), pain level (Visual Analog Scale-VAS), sleep time, daily water consumption, screen time, and physical activity level (international physical activity scale-IPAQ) were questioned. Descriptive and correlation analyses were performed using the SPSS program.

Results: The mean age of participants was 22.84 ± 2.73 years and all participants were male. Twenty-two esports players were valorant, 4 were Pubg, and the mean duration of esports as a professional was 4.76 ± 2.67 years. The mean VAS, sleep time, water consumption, and screen time of the esports players participating in the study were 2.19 ± 2.77 , 7.96 ± 1.61 hours/day, 2.36 ± 0.91 lt, and 8.84 ± 2.88 hours, respectively. The mean BMI was 24.28 ± 4.21 kg/m² (2 were underweight, 14 were normal, 7 were overweight, and 2 were first-degree obese), and IPAQ score was 1822.02 ± 1348.52 (7 were inactive, 8 were minimally active, and 10 were very active). A moderate correlation was found between IPAQ and body weight, BMI ($r = 0.508$ $p = 0.01$, $r = 0.517$ $p = 0.01$, respectively).

Conclusions As a result, esports players have mild pain, get enough sleep, and have limited water consumption. Additionally, esports players were found at risk for obesity which may be related to prolonged sitting and screen time. More than half also had low physical activity levels. These findings highlight the need to support esports players to exercise to cope with obesity and musculoskeletal pain.

Keywords: Esports, lifestyle habits, physical activity, obesity, pain

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PHYSICAL ACTIVITY COUNSELING AND PRACTICES IN REHABILITATION

Gülfidan Tokgoz¹

Physical activity counseling (PAC) is defined as offering verbal or written advice/guidance to encourage the individual to increase their current physical activity level. With universal access to healthcare today, a number of public health agencies, including the World Health Organization, recommend PAC practices. The aim of this review was to investigate PAC applications, effectiveness and sustainability, which is a current concept in preventive health.

In PAC applications, individualized physical activity targets are created in line with the needs of the individual, taking into account personal factors such as age, gender, occupation, socio-economic conditions of the individual, environmental factors, interests and preferences. The steps to reach the goal are planned with the cooperation of the consultant-client. In PAC applications include suggestions about the types, frequency and intensity of physical activity, information about the health benefits of physical activity, referral to group exercise sessions or therapists, setting appropriate goals, follow-up and sustainability components. Innovative approaches in healthcare services are tools that can increase the effectiveness of PAC interventions by increasing motivation of individuals and increasing their participation in PA, as well as providing objective data about physical activity results. These applications are clinically valuable and consultants are recommended to use these methods.

PAC, which is a current concept, can be used to increase the level of physical activity in preventive health and to prevent the risk of chronic diseases. PAC practices, personalized exercise recommendations and counseling are given to increase the level of physical activity, and measures are taken against chronic diseases such as obesity, diabetes and heart diseases. It is recommended to add physical activity level assessments to the basic assessments made in preventive health services and to plan effective PAC interventions by clinicians with the results obtained.

Keywords: Physical activity counseling, chronic disease, exercise, physical activity, inactivity

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EVALUATION OF THE PREVALENCE OF LOW BACK PAIN AND RELATED RISK FACTORS IN UNIVERSITY STUDENTS

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Aim: In this study, it was aimed to determine the frequency of low back pain (LBP) of the university students, to determine the risk factors that cause LBP and to reveal the effects of LBP on daily life.

Methods: The study was delivered to 609 people. 35 people refused to participate and a total of 574 participants (476 female, 98 male) were included in this cross-sectional study. Sociodemographic characteristics, average number of steps in last month and the factors related to LBP were questioned. The Oswestry Disability Index (ODI) was used to evaluate LBP. Fatigue was assessed with the Fatigue Severity Scale (FSS). The data was saved via Google Forms.

Results: The mean age of the participants was 20.65 ± 4.32 years, the average weight was 62.22 ± 14.57 kg, the average height was 1.66 ± 0.08 meters, and the body mass index was 22.40 ± 4.43 kg/m². Participants stated that they sat for 6.27 ± 2.88 hours on average and stood 6.94 ± 3.22 hours per day. The mean ODI scores of the participants were found to be 9.45 ± 8.94 , and the mean FSS scores were 4.02 ± 1.66 . The questionnaire scores were found to be significantly higher in women than in men and in those who do not do sports than those who do ($p < 0.05$). It was observed that smoking did not make a significant difference. The questionnaire scores of those who went to the doctor because of low back pain, who could not go to work/school because of pain, or who were disrupted, decreased significantly ($p < 0.05$). It was determined that the questionnaire scores were not correlated with the monthly mean number of steps ($p > 0.05$).

Conclusions: Knowing all these factors affecting the LBP influences and their interrelationships enables a systematic treatment plan. Courses on LBP risk factors should be added to the education program of university students in order to prevent back problems.

Keywords: Low back pain, oswestry disability index, fatigue, risk factors

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THE RELATIONSHIP BETWEEN SMARTPHONE USAGE AND NECK PAIN IN PHYSIOTHERAPY AND REHABILITATION DEPARTMENT STUDENTS

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Aim: The aim of this study is to investigate the relationship between smartphone addiction and neck pain in Physiotherapy and Rehabilitation department students.

Methods: 129 students (105 female, 24 male) were included in this cross-sectional study. The Smartphone Addiction Inventory-Short Form (SAS-SF) was applied to determine the smartphone addiction levels. The neck pain of the students were evaluated with the Neck Disability Index (NDI) and Numeric Pain Scale (NPS). The International Physical Activity Questionnaire-Short Form (IPAQ-SF) was used to estimate total physical activity in MET-min/week.

Results: The mean age was 22.09±4.61 years. The mean body mass index of the patients was 22.40±4.02 kg/m². The mean neck pain duration of the students was determined as 2.82±6.12 months. The screen time of the participants was found to be 249.37±109 minutes/day. Participants gave a mean score of 4.17±2.42 out of 10 for neck pain. The mean NDI score of the participants was 8.79±4.53, the SAS-SF score was 28.57±11.81, and the mean MET value was 2358.68±2159.94 min/week. The NDI score was found to be significantly higher in women, those who reported experiencing neck pain in the last month, and those who reported that they worked at a job (p=0.012, p=0.000 and p= 0.041, respectively). It was determined that NDI correlated with age and neck pain duration (p=0.03, p=0.02). However, no correlation was found between SAS-SF and MET values (p>0.05).

Conclusions: In our study, it was observed that the frequency of neck pain in university students was high. No relationship was found between smartphone usage and neck pain. Despite this, we think that trainings to increase body awareness in university students can make an important contribution to reducing neck pain.

Keywords: Neck pain, smartphone addiction, neck disability index, physical activity

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THE EFFECT OF LOW BACK PAIN ON POSTURE AND QUALITY OF LIFE IN SALESPERSONS

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Aim: In this study, it was aimed to evaluate the low back pain levels of actively working salespersons and to investigate the effect of pain intensity on posture and quality of life.

Methods: This observational study, which included thirty-four salespersons who were actively working at least eight hours a day in stores in Istanbul Ümraniye, was conducted between March 2021 and May 2021 through a face-to-face survey. The Visual Analogue Scale (VAS) was used to assess the pain intensity of the workers, the New York Posture Assessment Method (NYPDY) was used to assess the level of posture, and the World Health Organization Quality of Life Scale- Short Form (WHOQOL-Bref) was used to assess the quality of life. In the analysis of the data, the relationship between the relevant parameters was calculated by Pearson correlation analysis, and statistical significance was taken as $p \leq 0.05$ in all measurements.

Results: A total of 34 volunteer salespersons, 13 female (38.2%) and 21 male (61.8%) participated in the study. Demographic and clinical characteristics of the participants included in the study are presented in Table 1. The relationship between the pain levels of the participants and their posture scores was not significant ($r = 0.294$; $p = 0.091$). The relationship between pain intensity and physical health ($r = 0.470$; $p = 0.005$), psychological health ($r = 0.350$; $p = 0.043$) and environmental health ($r = 0.364$; $p = 0.034$) correlation was significant. There was no significant relationship between general health ($r = 0.280$; $p = 0.109$) and social relationships ($r = 0.127$; $p = 0.475$).

Conclusions: Salespersons are constantly standing and working in a static position, which can cause low back pain and adversely affect quality of life. During the study, short-term exercise breaks, preventive physiotherapy applications and ergonomic approaches are important in terms of increasing the quality of life.

Keywords: Salespersons, low back pain, posture, quality of life

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DOES THE SEVERITY OF PRIMARY DYSMENORRHEA AFFECT THE LEVEL OF PHYSICAL ACTIVITY AND THE AMOUNT OF PAINKILLER USE?

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Aim: The aim of our study is to determine whether the severity of primary dysmenorrhea affects the level of physical activity and the use of painkillers in university students.

Methods: Volunteer female students of Istanbul University-Cerrahpaşa, Faculty of Health Sciences were included in our study. The pain intensity of the participants was evaluated with the Visual Analog Scale (VAS) and physical activity levels were evaluated with the international physical activity questionnaire. The severity of dysmenorrhea was divided into 3 groups as 0-4 mild, 5-7 moderate, 8-10 severe dysmenorrhea according to VAS score.

Results: At the end of the study, the data of 272 out of 277 participants were analyzed. Participants were divided into mild (27.6%/n=75%), moderate (40.1%/n=109) and severe (32.4%/n=88) groups according to the severity of dysmenorrhea. When the physical activity level ($F_{(2;269)} = 0.607$; $p > 0.05$) and sitting times ($F_{(2;269)} = 0.01$; $p > 0.05$) of the participants according to dysmenorrhea severity groups were compared using the one-way anova test, no difference was found between groups. There was a difference between the groups in the amount of painkiller use ($F_{(2;269)} = 19.641$; $p < 0.05$). In the Tukey test, which was conducted to understand where the difference originated, it was seen that there was a difference between all groups. The mean amount of painkiller use of the groups was 0.69 for mild, 1.14 for moderate and 1.44 for severe group.

Conclusions: Studies have reported that dysmenorrhea causes physical activity restriction. According to the results of our study, mild, moderate or severe dysmenorrhea does not affect the level of physical activity and sitting time. But as the severity of dysmenorrhea increases, the use of painkillers increases. While prescribing physical activity and exercise to women experiencing dysmenorrhea, it is recommended that all groups be included in the practices regardless of the severity of dysmenorrhea.

Keywords: Primary dysmenorrhea, physical activity, dysmenorrhea severity, painkiller

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COMPARISON OF THE FOOT POSTURE, JOINT LAXITY AND HIP ROTATION PROFILE OF PRIMARY AND SECONDARY SCHOOL STUDENTS: A DESCRIPTIVE STUDY

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Aim: The aim of the study is to determine and compare the foot posture, joint laxity, and hip rotation profile of primary and secondary school students in Türkiye.

Methods: This study is approved by the ethical board and informed consent was obtained from the parents. Children were separated into 2 groups: 1st-4th grades as primary school group (PSG), and 5th-8th grades as secondary school group (SSG). To determine the joint laxity and foot posture, the Beighton score and Foot Posture Index-6 (FPI-6) were used respectively. Hip internal rotation (HIR) and trochanteric prominence angle (TPA) were measured with a basic goniometer. Normal reference values were accepted as Beighton Score<4, FPI-6<7, and 60°<HIR. Mann-Whitney U test was used for comparison. (p<0.05)

Results: A total of 314 students were included in the study: 157 for PSG (mean age: 8.52±1.18) and 157 for SSG (mean age: 12.09±1.08). Beighton score, mean FPI-6 score, and HIR angle were significantly higher in PSS (p<0.05). TPA was significantly higher for only the left side in PSG than SSG (p<0.05). The ratio of the higher values than reference values in PSG was 38.8% for laxity, 37.5% for foot posture, and 30.5% for HIR. The ratio of the higher values than reference values in SSG was 22.2% for laxity, 28.02% for foot posture, and 18.47% for HIR.

Conclusion: This study showed that joint laxity, foot pronation, and HIR were significantly higher in the younger ages, similar to the literature. Although it is expected that these values will decrease with development, there may be children with abnormalities in this period. Therefore, being aware of possible risks is important. In the primary and secondary education period, examining and following the factors that can cause problems in the development of children may prevent future problems.

Keywords: Children, joint-laxity, foot-posture, hip-rotation

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THE EFFECT OF A MINDFULNESS-BASED STRESS REDUCTION PROGRAM ON FATIGUE, SELF-EFFICIENCY AND STRESS IN PATIENTS WITH MULTIPLE SCLEROSIS

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Aim: It was aimed to evaluate the effect of Mindfulness-Based Stress Reduction Program (MBSR), which consists of teaching three classical meditation techniques, breath awareness, body awareness and dynamic yoga postures, on fatigue, self efficacy and stress in patients with Multiple Sclerosis (MS).

Methods: Thirty patients with MS, a member of the Turkish MS Society, 15 in the control (KG) and 15 in the experimental group (MG), were included in the study. The MBSR program was planned as a one-day-a-week in the association and daily homework model, and the program was carried out with an MG for 8 weeks. No program was planned for the CG, and the patients continued to come to the association for their routine controls/interviews. The perceived fatigue severity of all members was evaluated with the "Fatigue Impact Scale", the self-efficacy level with the "Self-Efficacy-Efficacy Scale", and the perceived stress level with the "Perceived Stress Scale" before and after the 8-week training. In the comparison of groups, Independent samples t-test or Mann-Whitney U test was used according to normal distribution, statistical significance was accepted as $p<0.05$.

Results: Twenty-two female and eight male volunteers were included in the study. There was no difference between the pre-program groups in terms of clinical and demographic parameters. In the comparison between the groups after the program, the perceived fatigue severity ($p=0.001$) and the perceived stress level ($p=0.009$) improved significantly in the MG compared to the CG. Cognitive ($p<0.001$), physical ($p=0.005$) and social ($p=0.002$) sub-parameters of perceived fatigue were all superior to the CG. There was no difference between the two groups in terms of self-efficacy-efficacy level ($p>0.05$).

Conclusions: The MBSR program is an effective method that can be used in addition to treatment to improve stress and fatigue, which has been reported to adversely affect disease progression and exacerbate disease activity.

Keywords: Multiple sclerosis, mindfulness, self-efficacy, stress, fatigue

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INVESTIGATION OF THE RELATIONSHIP BETWEEN SWALLOWING DISORDER AND THE LEVEL OF FUNCTIONAL INDEPENDENCE IN INDIVIDUALS WITH AICARDI GOUTIERES SYNDROME

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Aim: Aicardi Goutieres Syndrome (AGS) is an autosomal recessive disease with a poor prognosis characterized by significant neurological dysfunction. Hypothyroidism, insulin-dependent diabetes mellitus, hemolytic anemia, cardiomyopathy, epilepsy, motor and cognitive retardation are the concomitance pathologies. Aspiration pneumonia may occur due to severe hypotonia and difficulty in swallowing. In this study, it was aimed to investigate the relationship between swallowing function and functional independence level in individuals with AGS.

Methods: This observational study, which included 10 individuals aged 3 - 18 years diagnosed with AGS, was conducted between March 2020 and April 2020 by face-to-face survey method. Dysphagia symptoms and severity were assessed with the Eating Assessment Tool EAT-10, and independence levels were assessed with the Functional Independence Measure (WeeFIM). In the analysis of the data, the relationship between the relevant parameters was calculated by Spearman correlation analysis, and statistical significance was taken as $p \leq 0.05$ in all measurements.

Results: A total of 10 patients, 3 female (30%) and 7 male (70%) participated in the study. Demographic and clinical characteristics of the participants included in the study are presented in Table 1. A statistically significant negative correlation was found between the EAT-10 score and the WeeFIM score ($r = -.905$; $p < 0.001$).

Conclusions: Disruption of swallowing function in individuals with AGS negatively affects the level of independence of the individual. Therefore, swallowing therapy in individuals with the syndrome is important in terms of increasing the independence level of the individual and reducing the burden of caregivers.

Keywords: Aicardi Goutieres Syndrome, swallowing disorder, WeeFIM

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THE EFFECT OF IMPINGEMENT SYNDROME ON UPPER EXTREMITY FUNCTIONALITY AND GRIP STRENGTH COMPARISON WITH HEALTHY INDIVIDUALS

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Aim: In this study, it was aimed to examine the comparison of upper extremity functionality and hand grip strength in individuals 20 years of age and older with a diagnosis of impingement syndrome with healthy individuals.

Methods: Fifteen individuals diagnosed with impingement syndrome (experimental group) and 15 healthy individuals (control group) living in Bursa and receiving treatment were included in the study. Comparison of the effect of impingement syndrome on upper extremity functionality and grip strength with healthy individuals was done through questionnaires. Sociodemographic Form, Arm Shoulder and Hand Problems Questionnaire (DASH), Upper Extremity Functional Index (UEFI) questionnaires were applied to the participants. Right and left hand grip strengths were measured with a Jamar hand dynamometer.

Results: In the analysis, it was determined that the upper extremity functionality levels of the experimental group were statistically lower than the control group ($p<0.001$). It was determined that the arm-shoulder and hand disability levels of the experimental group were statistically higher than the control group ($p<0.001$). It was determined that the left and right hand grip strengths of the experimental group were statistically lower than the control group ($p<0.001$).

Conclusions: In this study, in which the effect of impingement syndrome on upper extremity functionality and grip strength was compared with healthy individuals, it was found that impingement syndrome had a significant effect on upper extremity functionality and grip strength when compared to healthy individuals.

Keywords: Impingement syndrome, upper extremity functionality, grip strength

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EXAMINATION OF FACTORS AFFECTING THE LEVEL OF PHYSICAL ACTIVITY IN PEOPLE WITH SEVERE OBSTRUCTIVE SLEEP APNEA

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Aim: Our aim in this study is to examine the factors affecting the level of physical activity in patients with severe OSA.

Methods: In our study, 8 female (29.4%) and 19 male (70.4%) totally 27 patients with severe OSA (AHI \geq 30, 53.57 \pm 20.23) (51.70 \pm 6.63) age) is included. Apnea-Hypopnea Indexes (AHI) and objective sleep parameters of the patients were evaluated with all-night Polysomnography (PSG), Daytime sleepiness with Epworth Sleepiness Scale (ESS), and physical activity levels were evaluated with the International Physical Activity Questionnaire (Short Form) (IPAQ-SF).

Results: Among the patients with severe OSA, 11 patients (40.7%) had low, 10 (37%) moderate, and 6 (22.3%) adequate physical activity levels. The mean IPAQ-SF score was 1689.56 \pm 2091.73. Daytime sleepiness levels average 9.59 \pm 4.48. No correlation was found between the physical activity scores of the patients and their daytime sleepiness, disease severity and sleep parameters. There was no significant difference in physical activity levels between the group with the cut-off value of ESS above 10 and the group below 10 (p>0.05).

Conclusions: The severity of the disease or daytime sleepiness do not affect the physical activities of patients with severe OSA. Influencing factors need to be examined in more detail.

Keywords: OSA, physical activity, daytime sleepiness

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ABSTRACTS BOOK

SOCIAL WORK ORAL PRESENTATION

01-02 December 2022

BANDIRMA – BALIKESİR / TÜRKİYE

EXPECTATIONS FROM SMOKING OF INDIVIDUALS WHO APPLY TO THE SMOKE CESSATION CLINIC

Kemal Balıca¹, Sunay Fırat²

Aim: This study was conducted to evaluate the expectations from smoking and smoking addiction of individuals who applied to the Smoking Cessation Clinic (SCC) regarding sociodemographic variables.

Methods: In this descriptive and cross-sectional study, “Sociodemographic Data Collection Form”, “Fagerström Test for Nicotine Dependence (FTND)” and “Brief Smoking Outcomes Questionnaire-Adult (BSCQ-A)” were applied. The sample of the study consisted of 339 patients who applied to the Smoking Cessation Clinic in 2019 and 2020.

Results: According to the results of the research, the FNBT mean score and standard deviation (4.68 ± 2.018), SDI score mean and standard deviation of the individuals who applied to the Smoking Cessation Clinic (SCC) were found to be (5.36 ± 1.30).

There is no significant difference between the FTND mean score and the BSCQ-A mean score of the individuals applying to SCC according to the variables of gender, age, and education level ($p > 0.05$).

Negative affect reduction ($p = 0.022$) and health risks ($p = 0.039$) subscales by gender, alcohol use frequency, craving/addiction ($p = 0.022$), and boredom reduction ($p = 0.009$) subscales by gender variable, psychiatric disorder no significant difference was found between the social facilitation subscale ($p = 0.020$) according to the diagnosis status ($p < 0.05$).

Conclusions: There is a significant difference between some of the subscales of expectations from smoking according to gender, frequency of alcohol use, and psychiatric disorder diagnosis of individuals applying to SCC. It is thought that these differences will help smoking cessation treatments by revealing the motivation of individuals to continue their smoking behavior.

Keywords: Addiction, smoking cessation, expectations from smoking.

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RELATIONSHIP BETWEEN THE LEVEL OF LEISURE TIME SATISFACTION AND SOCIAL PROBLEM SOLVING SKILLS AMONG 18-29-YEAR-OLD YOUNG PEOPLE PARTICIPATING IN YOUTH CENTER ACTIVITIES

Turhan Arslan¹, Kevser Tarı Selçuk²

Aim: This study was aimed at investigating the relationship between the leisure time satisfaction level and social problem-solving skills in 18-29-year-old young people who participated in youth center activities.

Methods: This descriptive study was conducted with 264 young people who participated in Alanya Youth Center activities between February 2021 and June 2022. The study data were collected by the researcher using the face-to-face interview method with a questionnaire including the Descriptive Information Form, Leisure Time Satisfaction Scale, Multidimensional Scale of Perceived Social Support, and Social Problem-Solving Inventory Revised-Short Form. Numbers, percentages, arithmetic mean, standard deviation, Students t test, one-way analysis of variance (ANOVA), Mann Whitney U test, Kruskal Wallis H test, Pearson correlation and linear regression analysis were used to analyze the data.

Results: The mean scores the participants obtained from the Leisure Time Satisfaction Scale and Social Problem Solving Inventory Revised-Short Form were 3.71 ± 0.69 and 60.59 ± 13.56 respectively. It was determined that there was a statistically significant, positive and weak relationship between leisure time satisfaction and social problem-solving skills ($r=0.367$, $p<0.05$). According to the multivariate linear regression analysis, leisure time satisfaction was a positive predictor of social problem-solving skills independent of other variables.

Conclusions: We recommend that in order to increase young people's leisure time satisfaction, activities should be carried out by making youth center activities attractive, more young people should be reached, social workers should be employed in youth centers, social service attempts to increase social problem-solving skills should be planned.

Keywords: Leisure time activities, leisure time satisfaction, social support, social problem, social problem solving skills.

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CHILD NEGLECT AND ABUSE AWARENESS OF HEALTHCARE PROFESSIONALS: A SYSTEMATIC REVIEW

Nurgül Gürbüz¹, Merve Tekin²

Aim: It is the fundamental right of all children to lead a healthy life free from violence. Approximately 5.5 million cases of child neglect and abuse are reported each year. These cases come to health institutions, law enforcement agencies, institutions and organizations affiliated to the Ministry of Family and Social Services. According to article 280 of the Turkish Penal Code, all healthcare professionals are obliged to report this situation to the competent authorities if they encounter any criminal situation while performing their duties. It is important for children's health and welfare that healthcare professionals realize these cases and take necessary actions within the scope of the legal framework. This study is a systematic review type study conducted to determine the results of studies on the awareness levels of health workers about child neglect and abuse in Turkey. Within the scope of the study, the articles published in the last five years were scanned and after the articles that did not meet the inclusion criteria were excluded, the remaining 9 articles were included in the 8 graduate theses and scanned.

Results: When the researches were examined, it was determined that 52.45% of the health workers received training/information about child neglect and abuse, while 47.55% did not. Health workers had difficulty in taking anamnesis (37.69%), they thought that the child's life would be adversely affected after the notification (29.57%), they did not know about the legal process (28.21%), they thought that social service units and other institutions would not deal with the case (% 19.83), having difficulty in reporting to relevant institutions (15.63%), not knowing exactly where to report child neglect and abuse cases (12.8%), having problems in keeping records (11.58%), such wrong thoughts and attitudes was found to be. In the light of this information, it has been observed that the level of awareness of healthcare workers in cases of neglect and abuse is moderate. It has been observed that the level of awareness about neglect and abuse cases is high in health workers who have more professional experience and are married and have children.

Conclusions: When the studies were examined, it was seen that the health workers encountered child neglect and abuse cases at a substantial rate, but the level of awareness of the health workers when they encountered these cases was low and they did not have enough information about what they should do legally.

Keywords: Health workers, child neglect and abuse, reporting

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THE IMPORTANCE OF JUDICIARY INTERVIEW ROOMS (AGO) IN CHILD NEGLECT AND ABUSE CASES

Hasan Hüseyin Tekin¹, Mustafa Topak²

Child neglect and abuse; It is the child's mental, physical, economic or any kind of harmful behavior by the parents or caregiver adults. Judicial Interview Rooms (AGO); Equipped with technological equipment, which aims to prevent secondary victimization for children in the justice system and victims in the vulnerable group, to reduce the negative effects of the judicial process, especially the expression and interrogation, to ensure that the processes are carried out taking into account age, development, mental state and similar factors. It is possible to define them as safe areas within the courthouse. In AGOs, which consist of waiting, observation and interview rooms, children who have been neglected and abused give their statements through forensic experts (social workers, psychologists, pedagogues) without judges, prosecutors, lawyers and audiences.

This study is a review type research aiming to reveal the function and importance of Judicial Interview Rooms (AGO) in the clinical interview process with child neglect and abuse cases included in the judicial system.

When the researches are examined, the number of incidents involving children coming to or brought to the security units increased by 10.8% in 2021 compared to 2020 and reached 499 thousand 319. In these incidents, 207 thousand 999 of the children were identified as victims. Of the 186 thousand 14 children who came or were brought to the security units as victims of crime, 57.4% were injured, 13.1% were sexual crimes, 12.4% were crimes against family order, 4.5% were threats, It is seen that 12.6 of them are victims of reasons other than these reasons. On April 3, 2017, the Victim Rights Department of the Ministry of Justice started to operate as a pilot scheme in 30 courthouses in Turkey, and currently there are 109 AGOs in 104 courthouses in 81 provinces in Turkey.

It is extremely important to take statements or conduct clinical interviews of children who have been traumatized by neglect and abuse without being exposed to secondary or repetitive traumas in terms of protecting the best interests of children. For this reason, it can be said that AGOs are an exemplary good practice model for child neglect and abuse cases. It is recommended to increase the number of AGOs in order to increase the welfare of children in the justice system.

Keywords: Child neglect and abuse, judicial interview rooms, juvenile justice system

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CHILD NEGLECT AND ABUSE FROM PAST TO PRESENT

Sibel Büşra Çakın¹, Merve Tekin²

It is the fundamental right of all children to lead a healthy life free from violence. Approximately 5.5 million cases of child neglect and abuse are reported each year. Child neglect and abuse; It is the child's mental, physical, economic or any kind of harmful behavior by the parents or caregiver adults. It is seen that child abuse and neglect is as old as human history. The understanding of childhood and the abuse and neglect of children according to this understanding have changed historically and have been perceived differently between cultures.

The aim of this qualitative study in the type of compilation is to examine the concept of child neglect and abuse in the historical process from past to present.

Child neglect and abuse, which was handled under different titles such as child abuse syndrome, shaken baby syndrome, Caffey syndrome, child's non-accidental injury or child maltreatment syndrome, came to the fore in 1962 with the "battered child syndrome" by Henry Kempe and his friends. The perception of child neglect and abuse has also changed in the context of the understanding of childhood, which has changed according to history and culture since the history of humanity. In the historical process, it has been seen that children were killed, exposed to different types of violence, especially girls were sexually abused, and slaves were sold and worked for the purpose of earning. With the emergence of child neglect and abuse as a problem, protective activities for children began to be prepared in the world and awareness was raised about this issue. As in many countries, protective and preventive activities are carried out regarding child neglect and abuse, which is still an important social problem in our country.

As a result, although child neglect and abuse has been handled by many different disciplines such as education, health, law, psychology and social work from past to present, it still continues to exist as an important problem. At this point, it is necessary to take different protective and preventive steps to protect children from neglect and abuse.

Keywords: Battered child syndrome, child neglect, child abuse

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TRANSFORMATION OF REALITY PERCEPTION WITH THE EFFECT OF DUCK SYNDROME IN SOCIAL MEDIA: A VIEW FROM SOCIAL WORK PERSPECTIVE

Sultan Tekinyer¹, Erman Alpagut², Recep Yıldız³

Social work, which is a discipline and profession open to development, is closely interested in the problems and needs of the society that continuously renewing. Increasing social media usage in the digital age is observed as one of these problems. While the development of technology makes our lives easier in many areas, it also brings disadvantages. This study, which includes the concept of "Duck Syndrome" defined by Stanford University, is aimed to deal with people's reconstructing identity behavior in their posts and its effects on their lives. Compilation based on a literature review is chosen as a method. Duck Syndrome is explained by the fact that, like ducks swimming on water, people make great efforts and everything seems effortless from the outside. Sharing the happy aspects of life only on social media transforms the reality perception and pushes those who see these posts to think that everyone is happy except themselves. In this context, it is thought that the transformation of the perception of reality with the effect of social media increases feelings of inadequacy and comparison in people. With the transforming reality, it can be said that the uniqueness of every human being is lost in the middle of where everyone can act like everyone else. Social work is a field in which people are seen as unique and valuable and also each individual is evaluated within their own experience. In line with this, social work professionals have the responsibility of dealing with current problems, analyzing them, and raising awareness about them. The study, which concludes that feelings of inadequacy and comparison are experienced with the use of social media, points out that awareness should be raised for all kinds of problems such as screen addiction, bullying, exclusion, and discrimination, and recommends adding a course named digital social work to the social work education curriculum.

Keywords: Duck syndrome, social media, digital, social work

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THE INCREASE IN THE SOCIAL UTILITY OF THE ELDERLY FROM RESIDENTIAL CARE SERVICES DURING THE PANDEMIC

Murat Çiftçi¹

Aim: The population segment most heavily affected by the pandemic has been the elderly. In this process, the importance of health and social services offered to the elderly has gained even more importance compared to the past. The aim of the study is to determine the change experienced by the elderly population in the benefit of residential care service provision during the pandemic period compared to the previous year.

Methods: The data were obtained from Tuik and SGK for the years 2019 and 2020. Atkinson index method was used in the study.

Results: It has been observed that there has been a significant increase in the social utility obtained by the elderly in the form of residential care activities in all six different age groups compared to 2019. According to this, the rate of social utility obtained by the elderly between 2019-2020 increased from 67.6% to 85.4% for the 65-69 age group; increased from 61.3% to 84.7% for those aged between 70 and 74; increased from 59.8% to 84.1% for those aged between 75 and 79; increased from 61.1% to 84.2% for those aged between 80 and 84; increased from 60.7% to 83.9% for those aged between 85 and 89; and lastly for those aged 90+, it increased from 59.7% to 81.4%.

Conclusion: The drifting of the elderly, who are the age group most heavily affected by the pandemic, to an isolated life has increased their need for residential care services. This led to a significant increase in the demand for residential care activities. This process resulted in a significant increase in the social utility rates obtained by all elderly age groups compared to the previous year. Thus, a more balanced distribution of residential care activities to the elderly population in the provinces was achieved.

Keywords: Social care, social politics, Atkinson index, elderly people.

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DEVELOPMENT OF THE AKÇAM STUDENT VIOLENCE PERCEPTION SCALE AND ANALYSIS OF THE PSYCHOMETRIC PROPERTIES

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Aim: The purpose of this study was to develop a valid and reliable measurement tool in order to determine the violence perceived by students in higher education from academicians.

Methods: In order to develop the Akçam student violence perception scale, a 21-item question pool was compiled and, in line with expert opinions, the CVS was calculated to be .78 and the CVI to be .93. After the pilot application, no changes were made and a sample of 1101 people was applied. The exploratory factor analysis (EFA) was used for construct validity and the internal validity was determined by a 27% sub-main group comparison. For the reliability of the scale the Cronbach α and split-half test consistency were calculated.

Results: No item with an item-total correlation coefficient below .30 is present and the item-total correlation values of the items vary between .372 and .718. The KMO-value for the 21 items included in the evaluation was found to be .953, whereas the Bartlett's test result was 11360.848 ($p < .0001$). The factor loading of the items in the obtained structure varies between .667 and .793. This single factor and 12-item structure explains 53.1% of the student's perception of violence. As a result of the 27% sub group / main group comparison, it was determined that the group score averages differed from each other in a statistically significant manner ($p < 0.001$). For the overall scale, the Cronbach α value was determined to be .91. In addition, the single factor structure showed consistency according to the split-half test consistency findings.

Conclusions: The Akçam student violence perception scale consists of 12 statements and it illustrates a variance of 53.1%. The reliability coefficient of the scale is within the appropriate limits. The scale shows a short and economical scale structure.

Keywords: Student violence perception, validity, reliability

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REFLECTIONS OF CHILD POVERTY IN ART HISTORY

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Poverty, which continues to exist in every period and appears as a phenomenon seen at different levels in every society, takes shape in different forms and dimensions and hinders the understanding of welfare, is more palpable on vulnerable groups; women, the elderly, etc. Children who are vulnerable and in need of defence are also among these vulnerable groups. Child poverty can be addressed from many perspectives such as economy, politics, law, social, education and art history.

When we look at the field of Art history, similar and different perspectives on child poverty have emerged in works of art, combining the dynamics of society and the style of the artist from antiquity to the 21st century. In this study, the approach of artists who lived between the 18th and 21st centuries, to child poverty, will be analysed. The study aims to draw attention to child poverty on the basis of the works of artists who mirror the situations in the society. For this purpose, with an interdisciplinary approach, the contributions of artists who address the problem of poverty, which is inevitable in every society, through children will be evaluated.

The study was conducted by literature review method. As a result, the theme of child poverty in works of art was shaped according to the period and social structures, and a common language was developed. In works of art, the theme of child poverty is presented with a framework that covers both the individual and society. From the perspective of social work, discipline and profession, our proposal to child poverty is to gain awareness through works of art.

Keywords: Child poverty, art, works of art

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A MOVIE ANALYSIS BASED ON FAMILY THERAPY THEORIES: ONE TRUE THING

Erman Alpagut¹, Sultan Tekinyer², Recep Yıldız³

Introduction: In this study, relationship dynamics deteriorated within the family after Kate contracted a terminal illness, which is the subject of the movie "One True Thing", is analyzed within the scope of family therapy theories and their main themes. This movie is about asking of George, an academic and writer, to Ellen, who works in New York, to take care of her mother Kate, after she fell ill with cancer and the negative change in the dynamics of the family after Ellen reluctantly returns to her family while leaving her job and her private life.

Aim: Just as the social sciences that define people from different perspectives differ among themselves, family therapy approaches also differ from each other. The study aims to reveal this differentiation in family relationship patterns with their unique themes and perspectives. Self-esteem, communication patterns, family triangles of Satir family therapy; boundaries, roles, subsystems, and family coalitions of structural family therapy; Intra-familial hierarchies, digital communication, analogical communication and double-binding communications are the main themes of strategic family therapy and differentiation of self, emotional triangles, multi-generational transmission processes and sibling position are the main themes of Bowen family systems therapy.

Methods: The studied film was analyzed by qualitative content analysis method. For this reason, firstly, descriptive analysis was carried out and then the stages of theming, making sense of the information and comparing the meanings were followed.

Results: Coalition against George was formed by Ellen and Kate. There are double-binding communications in family communication patterns. Ellen is highly separated from her family and is able to manage her life without being dependent on her family.

Conclusions: The conclusion reached in the study is that the variety of family therapies does not make it difficult to understand the family, but elaborates it. Because family therapy theories lay the groundwork for understanding the family with their different main themes.

Keywords: Family therapy, themes, one true thing, social work.

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RESEARCH OF PROBLEMS EXPERIENCED BY REFUGEES WITH DISABILITIES IN ACCESSING SOCIAL SERVICE PRACTICES AND CURRENT POLICIES

Yunus Emre Dadalı¹

Forced removal of war victims from their countries as a result of migration, puts people at a disadvantage. Especially if the migrant has a disability, it causes more serious problems in accessing basic needs such as health, housing and education. Disabled people in Turkey have individual and social problems and since refugees with disabilities need social work practices, this has led to new regulations in the public and social sphere. Migration Management, which is affiliated to the Ministry of Interior of the Republic of Turkey, which was established in 2013 according to the Law on Foreign and International Protection, provides services to immigration to Turkey. In this study, the difficulties experienced by refugees with disabilities in accessing social work practices are discussed. The aim of the study is to identify the problems experienced by refugees with disabilities, to examine and discuss their access to social work practices and the effectiveness of current social policies through public and non-governmental organizations. Study, was carried out by document analysis method. Result that obtained, shows that people experience problems in adapting, accessing housing, employment and health services and being discriminated certain times in foundations and organizations. In terms of social work discipline and profession, our suggestion for solving the problems experienced by refugees with disabilities in accessing social work practices is to reduce the problems they experience while adapting to social life, communicating with public and social service institutions with the support of translators. To support and strengthen them through public and non-governmental organizations in reaching needs such as health services and social services.

Keywords: Disabled refugee, migration, social work, social policy

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AN APPROACH TO ENVIRONMENTAL POLLUTION WITH A CHRONOSYSTEM PERSPECTIVE

Büşranur Güler¹

If the environmental pollution that threatens the living population is not prevented, the deteriorated ecosystem will prevail in all areas. The harm to health is inevitable. In terms of social work, the emergence of ecological refugees will also create new problems. For this reason, the study deals with environmental pollution, which is one of the problems that will affect the society in the long term, in terms of social work. The themes covered in the study are possible infectious diseases caused by environmental pollution, environmental injustice, environmental migration wave. The aim is to discuss environmental pollution in the context of the chronosystem in Bronfenbrenner's systems, which states that human development consists of five systems/structures arranged from the closest to the farthest, and to determine the responsibilities of social work in the face of this problem. Because social work is one of the business areas that can work with the society in taking environmental awareness and necessary precautions, and the ecological approach considers the individual and the environment as a whole affected by each other.

While the study is being carried out, the effect of health problems, environmental injustice and environmental pollution on migration will be evaluated by scanning the literature from a holistic perspective, taking into account the time dimension, the effect of the chronosystem, the individual and the environment, among the five systems created by Bronfenbrenner in the context of ecological approach, one of the social work theories.

When the objects in the universe are divided into two as animate and inanimate, the relationship of living beings with both inanimate and other living things is evaluated in ecological terms. Continuity of life also depends on the relationship of living beings with living and non-living environment at different levels in this ecological system. Social work is a necessary discipline in the fight against environmental pollution in order to establish a healthy relationship with the environment and society. They have responsibilities in cooperation with the necessary professions and disciplines. This necessity and responsibility can be revealed by making use of the ecological approach.

Instead of only certain professions and disciplines, all units can act together against environmental pollution, and different long-term sustainable projects can be realized through the competencies of their own units. Considering the profession and discipline dimension, social workers should also assume responsibilities.

Keywords: Environmental pollution, Chronosystem, Social Work.

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THE CHANGE IN CARE CENTERS FOR THE DISABLED IN CARE SERVICES QUALITY STANDARDS GUIDE

Pınar Demirisler¹

In the last century, many humanitarian situations such as the rights, living spaces, and definitions of disabled people have been determined and models have been created, the social model has mainly found supporters, and social policies have developed in this circumstance. This process has brought change for care centers as well. Turkey also followed the change and in a short time, welfare-oriented care for the disabled and improving the conditions became the dominant view. In particular, the practices put forward to improve the quality standards of disability care institutions over a 20-year period show the change in the definition of disability and raising awareness in the society. The aim is to evaluate the reflection of the changing approach in favor of the disabled on the care institutions in Turkey through the care services quality standards guide.

The care services quality standards guide, determined with the change experienced, will be evaluated in the light of case examples for care services and by scanning the literature.

The importance of psychosocial support has replaced the policy that the service received by the disabled in the nursing home consists only of nutrition and hygiene. In this context, in-service trainings determined by the Ministry of Family and Social Services on issues such as care, psychology and precaution help the people working in the disabled care centers to provide conscious service, while also helping to increase the quality of service. With the care services quality standards guide, the way of cooperation of institutions has been opened and it has been explained that there is no problem in getting the necessary support from governorships, municipalities, health institutions.

In order for the change in care services to be successful, emphasis should be placed on the evaluation of the active service provided by the care organization within the scope of the care services quality standards guide, rather than the document recording of the institution audits.

Keywords: Disabled care, care services quality standards, social work

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INVESTIGATION OF THESIS ON PAIN DEVELOPING PATIENTS WITH POSTOPERATIVE NURSING IN TURKEY: A SYSTEMATIC REVIEW

İlknur Yücel¹, M. Nasrullah Er²

Aim: This research was conducted to examine nursing graduate thesis studies in Turkey to evaluate the attempts of nursing professionals for the feeling of pain developed in postoperative patients.

Methods: In this study, master's and doctoral theses in the National Thesis Center were examined between 25-27 October with the words "nursing" and "postoperative". As a result of the search, a total of 9 studies were reached between 1999 and September 2022. This study was conducted on 3 dissertations that met the inclusion criteria.

Results: 3 of the theses are master's thesis. There is no doctoral thesis. In one of the theses, it is an experimental study in which nurses were trained about pain for the relief of pain in the postoperative period. One of the theses is a study with a control group in order to evaluate the nursing interventions for postoperative pain after inguinal hernia operation in the age of 3-7 years. One of the theses was made to prevent pain and other postoperative complications that may occur in patients undergoing urinary incontinence surgery. In all of the studies, it was determined that the pain decreased after the interventions.

Conclusions: As a result of the studies, it was determined that the applications for postoperative pain reduced the pain and other complications in the patients.

Keywords: Nursing, postoperative, thesis

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MEAL FREQUENCY IN CARDIOVASCULAR DISEASES

Hande Nur Onur Öztürk¹

Energy restriction can improve the health of people who are not considered obese. Although nutrient-dense, low-energy diets have numerous health benefits, the health impact of meal frequency has not been conclusively established.

In this study, the effect of meal frequency on cardiovascular diseases is reviewed.

Meal frequency regimens usually classified into two main forms like one large meal (1 meal/day) that includes consuming all daily energy needs (feasting), and small meals (e.g., three, six, nine, 12, or 17 meals a day) that include meeting all daily energy needs (nibbling). It has been reported that long-term energy restriction reduces arterial blood pressure and serum lipid concentrations, which are known metabolic risk factors for cardiovascular disease, and that energy restriction has antioxidant potential and anti-inflammatory properties. Few studies have evaluated the relative effects of intermittent fasting (IF) and continuous energy restriction on cardiovascular risk markers. One study found that 2 days of alternating fasting reduced fat mass, total cholesterol, LDL cholesterol, and triglyceride concentrations. Randomized comparisons of IF and continuous energy restriction reported equivalent reductions in blood pressure and triglyceride and equivalent LDL particle size. On the other hand, a slight dose-response relationship was observed between increasing number of meals and decreased total cholesterol, LDL cholesterol and apo B. It was found that the single meal pattern caused the greatest increases in the HDL cholesterol parameter, while more than three meals had almost no effect.

To obtain a comprehensive view of the physiological and health effects of meal timing and frequency, the available evidence for meal frequency and timing should be considered. In addition, breakfast consumption, night eating, energy restriction and intermittent fasting studies, the effects of food manipulation on health outcomes should be informed. Beyond body weight and composition, different eating habits are likely to exert somewhat different effects on physiological processes, even under the same conditions.

Keywords: Meal frequency, intermittent fasting, cardiovascular diseases.

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SPORTS NUTRITION: THE EFFECT OF PROTEIN CONSUMPTION AFTER EXERCISE ON MUSCLE BUILDING

Bihter Taşdelen¹ Özlem Yayıntaş²

Adequate and balanced nutrition is the primary condition of being healthy. Adequate and balanced nutrition is of great importance in order to increase the quality of sports for individuals and athletes and to have a healthy physical structure. While a healthy diet provides athletes with increased performance, high concentration and motivation, an inadequate and unbalanced diet can cause health problems and poor performance. The effectiveness of the training performed in the athlete who has a healthy diet reaches the maximum and the athlete feels fit. An adequate and balanced diet minimizes the risk of illness and injury, and shortens recovery time after a race or injury. For athletes competing according to weight categories, an adequate and balanced diet is beneficial in maintaining body weight and keeping body fat ratio to a minimum. Protein is one of the most mentioned macronutrients in sports nutrition. Macronutrients and micronutrients for athletes should be calculated and planned very well in proportion to their physical activities. Protein is very important for athletes who want to build muscle and do strength training, to protect their muscle mass and to build muscle mass more. Deficiency or excess of protein consumption creates a problem for muscle-building athletes. The amount, time, and type of protein consumption is very important for muscle-building athletes. In cases where protein supplementation is needed, the type and amount of the supplement should be planned according to the athlete.

Keywords: Sport Nutrition, protein consumption, muscle mass, muscle-building athletes, protein.

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AN ALTERNATIVE THERAPEUTIC ADMINISTRATION IN THE TREATMENT OF ULCERATIVE COLITIS: PROBIOTICS

Mehmet Çavdar¹, Meliha Çavdar²

In the literature, new therapeutic applications that can be an alternative to the routine pharmacological agent treatment used in the clinic in ulcerative colitis (UC) continue to be investigated. One of these alternative applications is probiotic supplementation (PS). Probiotics are microorganisms that can have positive effects on various metabolic reactions when consumed in a certain amount. Probiotic bacteria isolated from foods or living tissues can be applied to the organism as a single strain or as a mixture of different strains to provide metabolic benefits.

Among the main metabolic contributions of PS to the treatment of UC; There is the presence of short-chain fatty acids (SCFA), which are released because of the alteration of the intestinal microbiota pattern of dysbiotic character and the fermentation of prebiotics. Butyrate, one of the aforementioned SCFA components, protects colon health; it contributes by using it as a substrate by colonocytes. It has also been shown that butyrate increases mucin secretion in intestinal epithelial cells and regulates intestinal permeability by strengthening the structure of tight junction proteins in these cells. With the application of probiotics, an increase is observed in the density and amount of genera such as “*Lactobacillus*” and “*Bifidobacterium*”, which are beneficial bacteria in the intestinal microbiota pattern; in this way, the amount of pathogenic bacteria in the microflora composition can be reduced. In addition, beneficial bacteria reduce the expression of proinflammatory cytokines and play a role in suppressing inflammation by increasing the expression of anti-inflammatory cytokines.

Despite the positive metabolic effects of PS on UC, the metabolic effects of strains or products may vary. Therefore, more detailed studies are needed to elucidate all aspects of the potential of PS as an alternative therapeutic agent in the treatment of UC.

Keywords: Ulcerative colitis, Probiotics, Short-chain fatty acids.

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HEALTH IMPACTS OF MICRO AND NANO PLASTICS

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Microplastics (MPs) and nano plastics (NPs) are seen enormously in the environment. Although data from several studies indicate that MPs and NPs can be found in foods, air, water and soil, they have recently become an environmental pollutant concern due to the less is known about health effects. Human exposure to MPs can vary, but mainly through ingestion or inhalation could lead to the accumulation of MPs in the body and thus trigger or induce the immune system which could result in local particular toxicity. In the current review, we briefly summarized the contamination of MPs and NPs with their health impacts based on the literature. This review indicates that human exposure to MPs and NPs can vary, but mainly through ingestion, inhalation, and dermal contact, and can easily lead to accumulation in the body. The annual average for an adult to exposures to MPs by consumption of table salt and drinking water, respectively 5.1×10^3 and 4.1×10^4 items, 0.9×10^4 to 7.9×10^4 items by inhalation. Although there is no evidence yet that MPs, which are inert, are metabolized in the human body, some of the MPs act as carriers for various toxic compounds that can be metabolized and cause additional harm, causing different biological effects in various organs. NPs are also capable of penetrating into all tissues such as the brain, by crossing the gut, placenta, and blood-brain barrier. However, the impact of MPs/NPs on human health is scarcely researched. Releasing toxic chemicals from MPs/NPs could have acute, subacute or chronic toxic effects causing diseases such as certain cancers. Since the importance of MPs and NPs, which are frequently encountered in foods and the environment, has only been realized in recent years, more scientific studies are needed on their potential long-term effects.

Keywords: Microplastics, nano plastics, health impact, human exposure

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EFFECTS OF NEUTROPHIL-TO-LYMPHOCYTE RATIO ON DIAGNOSIS, PROGNOSIS AND MORTALITY IN PATIENTS WITH COVID 19

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Aim: Leukocyte and subgroup analyzes on infections provide substantial data in terms of diagnosis, prognosis, and mortality of the disease. In particular, an increase in the neutrophil count and a decrease in lymphocyte count are used as early diagnosis methods of a disease. In addition, it is known that the neutrophil-to-lymphocyte ratio (NLR) is associated with the prognosis and mortality of diseases. In this review, it is aimed to summarize the results of the research that states the effects of NLR on the diagnosis, prognosis, and mortality of Covid-19 patients.

Methods: In this review, the articles published in the literature were analyzed. The keywords: Neutrophil to Lymphocyte Ratio (NLR), Covid-19, Diagnosis, Prognosis, Mortality were used for searching related articles. The results from the articles that emphasise the importance of NLR were reviewed.

Results: NLR is a laboratory value that provides information about the inflammatory process and the immune response in patients. In healthy individuals, the normal NLR is between 0.78 and 3.53. This value is significantly higher in Covid-19 patients when compared to healthy individuals. When NLR values were evaluated in patients who were diagnosed with Covid 19, it was observed that the group with higher NLR value has more severe prognosis. Also, the need for mechanical ventilation increased in this group. In the same patient group, it has been proven that the risk of death is higher for patients with higher NLR, along with other factors, compared to other patients.

Conclusions: As a result of this research, it is supported that NLR is a marker that can be used for diagnosis, prognosis, and mortality assessment in patients. These parameters are cheap and easily accessible. Along with more comprehensive studies, this ratio may be among the routine tests.

Keywords: Neutrophil to Lymphocyte Ratio (NLR), Covid-19, Diagnosis, Prognosis, Mortality

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ANALYTICAL METHODS USED FOR THE DETERMINATION OF ACETYLSALICYLIC ACID IN HUMAN PLASMA

Ayşen Kurt Cücü¹, Ali Baran Taşar²

Aspirin, one of the Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), is a drug with anti-inflammatory and antipyretic properties, used as a pain reliever and antipyretic in the treatment of mild-to-moderate pain. These effects of acetylsalicylic acid, which has more than one effect, vary depending on the dose used. It has a blood thinning effect. Long-term low dosage is used to provide protection against heart attack. While showing these effects, its mechanism is based on the inhibition of the biosynthesis of prostaglandins. The pharmacodynamic and pharmacokinetic properties of the drug determine the side effects and the parameters that constitute the effectiveness of the drug. In this study, we aimed to investigate the active substance of acetylsalicylic acid, which is beneficial in heart attack, stroke and some types of cancer, apart from pain, fever and colds. We aimed to analyze the recent analytical studies on the pharmacological properties, characteristics, uses, interactions, side effects and determination methods of this active ingredient in human plasma.

In this study, the changes that acetylsalicylic undergoes after it is taken into the body and how some drugs that have to be used together affect these changes were examined. In addition, in vitro and in vivo studies on aspirin have been researched from scientific journals and books using various databases. The results of the analyzes on the determination of acetylsalicylic acid in human plasma were examined and evaluated.

Various determination methods of this active ingredient used in acute or chronic diseases in human plasma have been investigated. As a result of the examination of the manuscripts based on these methods, while supporting the information about the pharmacokinetics of aspirin, its use in the treatment; It was emphasized that the toxicity, side effects and drug interactions of the drug should be considered carefully.

Keywords: Acetylsalicylic acid, human plasma, LC-MS/MS, GC-MS/MS, NP-TLC

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A RETROPERITONEAL MASS DETECTED WITH NONSPECIFIC SYMPTOMS

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Aim: In this study, we aimed to present a 61-year-old female patient who presented with nonspecific complaints such as abdominal pain and bloating, with a retroperitoneal mass detected in the examinations and surgically treated, together with her radiological imaging and operation pictures.

Method: The lesion was defined by radiological imaging of the patient who was examined for his complaints, and total excision of the mass was planned with an abdominal approach.

Results: It was defined as a homogeneous, well-circumscribed, retroperitoneal lesion of 151*120*62 mm in size, extending to the inferior renal vein filling the right half of the pelvis, on MRI, and showing no enhancement after contrast. The patient was evaluated in the surgical radiology oncology council and an operation decision was made. The abdomen was entered with a midline incision. Exploration revealed a lipomatous mass of approximately 15*15 cm in size, easily decomposable, without invasion into the surrounding tissue, starting from the inferior duodenum and extending to the external iliac vessels, located behind the right ureter and gonadal vessels posterior to the right cecum and ascending colon. The right told fascia was opened laterally and the mass was separated from the tissues to which it was attached, especially in the right pelvis, and excised with an intact capsule. The patient was discharged uneventfully on the first postoperative day. The pathology of the excision material was reported as lipoma.

Conclusions: Intra-abdominal or retroperitoneal masses may present with compression symptoms or dyspeptic complaints. They can be histopathologically benign or malignant. When detected, the mass should be excised with clean surgical margins, patients with malignancy should also be evaluated in terms of oncology and followed closely for possible recurrences.

Keywords: Dyspepsia, retroperitoneal mass, lipoma

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ENDOVASCULAR TREATMENT OPTION IN CEREBRAL VEIN THROMBOSIS

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Aim: Cerebral venous thrombosis is a less common and more benign clinical condition than occlusive cerebrovascular diseases affecting the arteries. In some cases, the variety of clinical findings makes diagnosis difficult.

Methods: We present a young case who presented with sudden loss of consciousness and recovered without neurological deficit with endovascular treatment.

Results: A 24-year-old male patient was admitted to the emergency department of our hospital due to a headache for 2 days and sudden loss of consciousness. In the neurological examination, Glasgow coma skala 4, there was extensor response to painful stimuli, no significant findings in vital signs and laboratory tests. There was no medical history and medicine use. In the MRI examination, T1 hyperintense lesion was observed at both deep thalamus levels, more prominent on the right. Contrast-enhanced CT showed hyperdense sinus rectus and internal cerebral vein. The patient was intubated and referred to the upper center for interventional procedure. Under general anesthesia. A 5F sheath was attached to the right femoral artery and an 8F sheath to the right femoral vein. Imaging was taken by arterial injection with 5F. Deep venous structures were not seen in the imaging, and it was decided that the right transverse sinus was hypoplastic. After confirming the location with tip injection, thrombectomy was performed 2 times in acute stroke with a 6-piece trombectomy device. In the arterial injection taken from the left vertebral, it was observed that the deep venous structures were somewhat visualized. MRI scan, Neurological and mental examination findings after 6 months were normal.

Conclusion: Central cerebral vein thrombosis is likely to have a poor prognosis in cases presenting with loss of consciousness. Our case shows that endovascular treatment option in the early period can be a good alternative in cases with sudden loss of consciousness diagnosed with central cerebral vein occlusion.

Keyword: Central cerebral vein thrombosis, endovascular treatment, loss of consciousness

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INTRASEREBRAL HEMORRHAGE DEVELOPED IN A YOUNG SCLERODERMA PATIENT

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Aim: Scleroderma is a connective tissue disease that affects various systems, especially the skin, lungs and other organs. Rarely, it may involve the nervous system due to vasculitic changes. We aimed to present a young patient with a previous diagnosis of scleroderma with spontaneous intraparenchymal hemorrhage.

Results: A 40-year-old female patient presented with a headache in the frontal region that did not respond to analgesics. She had a history of scleroderma and hypothyroidism. Her body temperature was 36.2 °C, respiratory rate was 22/min, heart rate was 61/min, and blood pressure was 97/52 mmHg at his admission. Neurological examination was within normal limits. In laboratory examination, hemogram and bleeding profile were normal. There was no antiaggregants or anticoagulants use. Her treatment consisted of corticosteroids and monthly cyclophosphamide. In the brain MRI examination, an area of 18 x 11 millimeters of hemorrhage was observed at the level of the deep white matter in the right frontal region. Contrast enhancement was not observed in the contrast-enhanced brain MR examination. No vascular pathology was observed in cerebral MR angiography. The patient was treated with antiedema. During her hospitalization, her blood pressure remained within normal limits. In the patient who had intermittent control brain CT, resorption was observed in the hemorrhage area. The patient was clinically stable and was discharged with recommendations.

Conclusion: Intracranial bleeding in scleroderma may occur due to hypertension, aneurysm, amyloidosis, and vasculitic involvement. However, in our case, blood pressure was at a normal level. Intracerebral hemorrhage may occur in scleroderma and connective tissue diseases. Care should be taken in this regard in patients with headache, even if the neurological examination is normal.

Keywords: scleroderma, intraparenchymal hemorrhage, vasculitis

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IN VITRO ANTIMICROBIAL POTENTIAL of *RUBUS TERETICAULIS* P.J. MULL. VARIOUS PARTS: A COMPARATIVE STUDY

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Aim: The aim of the present study was to comparatively assess the antibacterial and antifungal potential of extracts from leaves (RTL), stem (RTS) and root (RTR) of *Rubus tereticaulis* by maceration in 90% ethanol.

Methods: Antimicrobial activity was carried out using Clinical and Laboratory Standards Institute (CLSI) broth micro-dilution (BMD) methods against seven bacteria (*Staphylococcus aureus* ATCC 29213, *Staphylococcus epidermidis* ATCC 12228, *Enterococcus faecalis* ATCC 29212, *Pseudomonas aeruginosa* ATCC 27853, *Escherichia coli* ATCC 25922, *Klebsiella pneumoniae* ATCC 4352, *Proteus mirabilis* ATCC 14153) and one fungi (*Candida albicans* ATCC 10231).

Results: The antimicrobial activity of the extracts were classified as follows, using the criteria suggested in the literature. The extracts were classified as strong ($MIC \leq 10 \mu g/mL$), significant ($10 < MIC \leq 100 \mu g/mL$), moderate ($100 < MIC \leq 625 \mu g/mL$), weak ($625 < MIC \leq 1250 \mu g/mL$) and inactive ($MIC > 1250 \mu g/mL$). RTL, RTS, and RTR extracts showed strong/significant antifungal activity against *Candida albicans* with MIC values of 5, 10 ve 19,5 $\mu g/mL$, respectively. All of the extracts exhibited significant antibacterial activity with same MIC values of 39 $\mu g/mL$ against *Enterococcus faecalis*. RTR (312,5 $\mu g/mL$), RTS (312,5 $\mu g/mL$), and RTL (625 $\mu g/mL$) presented moderate antimicrobial activity against *Staphylococcus aureus*. RTS and RTL with MIC values of 625 and 1250 $\mu g/mL$ displayed mild antimicrobial activity against *Staphylococcus epidermidis*, respectively. RTR only demonstrated moderate antibacterial activity against *Escherichia coli* with a MIC value of 312,5 $\mu g/mL$. The extracts were generally effective against Gram-positive bacteria. Also, it is noteworthy that only RTR was effective against *Escherichia coli*, one of the Gram-negative bacteria.

Conclusions: As far as we know, this is first report on antimicrobial activity of *Rubus tereticaulis*. The results indicated that the extracts had significant antibacterial and anticandidal activity, especially against *Candida albicans* and *Enterococcus faecalis*. As a result, all extracts could serve as potential sources in the discovery of new natural antimicrobial agents.

Keywords: *Rubus tereticaulis*, aqueous ethanol extracts, antimicrobial activity

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THE EFFECT OF HEARING AID FREQUENCY COMPRESSION TECHNOLOGY ON P1-N1-P2 WAVES

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Aim: The most common audiogram configuration among the hearing-impaired is the type of hearing loss, which is characterized by a steep slope between 2 and 8 kHz. People with this type of hearing loss have limited access to high-frequency sounds. Commonly used hearing aids cannot provide sufficient gain to pick up high frequency sounds for many reasons. In this study, in patients with sensorineural hearing loss (SNHL), which shows a sudden decrease in high frequencies; The effect of high-frequency sounds on the audibility of the hearing aid to be increased by using frequency compression (FC) technology was investigated.

Methods: Pure tone audiometry test were applied to the individuals. Participants with the targeted audiogram configuration were identified. Hearing aids were applied to individuals to evaluate the effectiveness of frequency compression technology. Two programs were created manually. (FC on/FC Off) Cortical Auditory Evoked Potentials (CAEP) test was applied in both programs. The /t/ stimulus was used at 65 dB SPL. The latency and amplitudes of the P1-N1-P2 waves were evaluated.

Results: The latency values of the P1-N1-P2 waves were evaluated in ms and the amplitude values were evaluated in microvolts. Statistically significant shortening of the latency of P1 and P2 waves was observed when FC was On. A statistically significant increase was observed in the amplitudes of the P1 and P2 waves. No statistically significant difference was observed in N1 wave latency and amplitude. However, when FC was on, a shortening of the mean latency values and an increase in amplitudes were observed.

Conclusions: Recording CAEPs to evaluate the effectiveness of FC aimed at increasing audibility is an effective method to measure the change in audibility due to FC technology. There are many studies in the literature showing similar findings.

Keywords: Frequency compression, cortical auditory evoked potentials, hearing aid

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