sciendo

PROCEEDINGS OF THE LATVIAN ACADEMY OF SCIENCES. Section B,
Vol. 79 (2025), No. 1/2 (754/755), pp. 145–168.

DOI: 10.2478/prolas-2025-0009

83rd INTERNATIONAL SCIENTIFIC CONFERENCE ON MEDICINE AND HEALTH SCIENCES OF THE UNIVERSITY OF LATVIA: PUBLIC, MENTAL HEALTH, AND EPIDEMIOLOGY

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

This section "Public, Mental Health, and Epidemiology" presents a diverse collection of abstracts reflecting ongoing interdisciplinary efforts to address complex healthcare challenges across public health, clinical medicine, psychosocial studies, and healthcare ethics. The research included draws on contexts from Latvia, Lithuania, and Kazakhstan, illustrating a robust commitment to evidence-based practice and cross-disciplinary collaboration.

In the domain of epidemiology and preventive medicine, the abstracts provide insights into disease prevalence and public health strategy implications. Studies include comprehensive analyses of prostate and tonsillar disease incidence trends in Kazakhstan, supplemented by focused research on prostate cancer screening practices within Latvian primary healthcare. Investigations into iron deficiency anaemia among children identify notable deficiencies in parental awareness, indicating a need for intensified public health education. Additionally, research exploring attitudes toward vaccination and organ donation offers valuable perspectives on behavioural and sociocultural determinants influencing healthcare decisions.

Within the allergy and immunology cluster, submitted studies evaluate sensitisation trends to respiratory and food allergens, particularly highlighting emerging concerns related to insect-derived protein allergens. These findings have direct clinical implications for allergology and underscore the importance of evolving regulatory frameworks to protect public health.

Mental health and psychosocial well-being constitute a substantial portion of the abstracts, addressing critical psychological aspects linked to chronic disease management, therapy adherence, and interpersonal behaviours. Topics include the prevalence and risk factors of depressive disorders among chronically ill patients, factors contributing to psychotherapy dropout rates, and relationships between loneliness, narcissism, and addictive behaviours. Research addresses also adolescent mental health issues, examining correlations between psychoactive substance use and depressive symptoms, and the psychological impacts of sustained exposure to war-related media content. Methodological innovations are presented in suicide risk assessment, employing culturally adapted frameworks like the UK Biobank model, highlighting the importance of context-specific validation.

Clinical care quality and patient rights form another essential thematic area. Medication adherence among multimorbid patients is another critical topic explored. Factors influencing adherence are analysed to inform interventions that improve patient outcomes in complex healthcare scenarios. Abstracts also examine aggression management in dementia care, highlighting the effectiveness of targeted nursing education and person-centred approaches to care. Ethical and legal considerations in healthcare are explored through analyses of fatal delirium cases and reviews of systemic barriers in implementing and respecting patient rights across healthcare settings.

Taken together this section emphasises the interconnectedness of clinical insights, psychosocial factors, and public health analyses. It demonstrates the importance of integrating biomedical, psychological, social, and ethical dimensions in shaping health practices and policies, ultimately leading to a more responsive, equitable, and effective health system.

Signe Mežinska

Public Health and Epidemiology

TRENDS IN THE INCIDENCE OF TONSILLAR DISEASES IN KAZAKHSTAN: A 10-YEAR RETROSPECTIVE ANALYSIS

Birlesova, Aruzhan[1], Shishkin, Ivan[1], Bilyalova, Zarina[2], Igissin, Nurbek[3]

[1] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN; alibirlesova@gmail.com

[2] Central Asian Institute for Medical Reasearch, Astana, KAZAKHSTAN

[3] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

Background. Tonsillar diseases represent a significant public health concern in Kazakhstan, particularly among children and adolescents. Over the past 10 years, the incidence of these diseases has shown dynamic changes, highlighting the need for statistical analysis to assess the effectiveness of preventive and therapeutic measures and to identify key risk factors. This study aims to analyse the trends in tonsillar diseases in Kazakhstan and provide recommendations for optimising medical care.

Aim. To assess the incidence of tonsillar diseases in the Republic of Kazakhstan.

Methods. A retrospective study (2009–2018) based on data from the Ministry of Health of Kazakhstan (annual report form No. 12) on registered cases of chronic tonsillar diseases (J35.0–J35.9). Population data were obtained from the official website of the Bureau of National Statistics. Descriptive and analytical epidemiological methods were used for statistical analysis.

Results. During the study period, 662,212 cases of tonsillar diseases were recorded, including 332,585 (50.5%) in women and 327,627 (49.5%) in men. The average annual incidence was 389.2 7.9 per 100,000 (95% CI = 373.7–404.8). Over time, the incidence decreased from 420.1 1.6 per 100,000 (95% CI = 416.9–423.3) in 2009 to 358.9 1.4 per 100,000 (95% CI = 356.1–361.6) in 2018 (t = 1.976, $p = 0.000$), with an average annual decline rate of T = –2.0% ($R^2 = 0.6754$).

Among men, the average annual incidence was 398.6 6.7 per 100,000 (95% CI=385.4–411.8), decreasing from 416.7 2.3 per 100,000 (95% CI = 412.1–421.2) in 2009 to 378.1 2.1 per 100,000 (95% CI = 374.0–382.1) in 2018 (t = 1.976, $p = 0.000$), with an annual decline rate of T = –1.4% ($R^2 = 0.4726$). Among women, the average annual incidence was 380.5 9.5 per 100,000 (95% CI = 361.9–399.1), decreasing from 425.6 2.3 per 100,000 (95% CI = 418.9– 427.7) in 2009 to 335.4 1.9 per 100,000 (95% CI = 337.1–344.6) in 2018 (t = 1.976, $p = 0.000$), with an annual decline rate of T = –2.6% ($R^2 = 0.7567$).

Conclusion. Systematic monitoring of tonsillar disease trends is essential for evaluating the effectiveness of prevention and treatment measures. The observed decline in the incidence and gender differences indicate that regular statistical analysis helps to detect epidemiological changes promptly. The study findings can contribute to the development of preventive programs and improvements in treatment strategies.

Acknowledgments. The authors express their gratitude to the Ministry of Health of the Republic of Kazakhstan for providing data for this study.

IMPORTANCE AND EFFECTIVENESS OF THE PROSTATE CANCER SCREENING METHOD IN FAMILY PHYSICIAN PRACTICE

Bogdanova, Jekaterina

University of Latvia, Rīga, LATVIA; jekaterinamarkovaa@gmail.com

Background. Prostate cancer is one of the most common cancers among men and the second leading cause of death among cancers in men. Since 1997, PSA has been used in the diagnosis of prostate cancer.

In Latvia, PSA determination as a screening method was introduced from 1 May 2021. However, there is a debate in the public and among doctors whether screening is an effective method in the diagnosis of prostate cancer.

Aim. The aim of the study is to investigate all clinical cases with positive PSA screening and detected prostate cancer, determining the importance and effectiveness of screening in general practice.

Methods. As part of the study, all screening results were examined in the period from 01.05.2021–01.05.2024. 710 men aged 51–75 were involved in the study. Of these, 384 completed this screening.

Results. As a result of the study, data was obtained that 10.9% of cases had a positive PSA screening. In 32.3% of cases, biopsies revealed prostate cancer, which does not reach 40%. Therefore, one of the hypotheses is not confirmed. In 40% of cases, the biopsy showed Gleason 3 + 3 = 6, which means that the oncology was detected in time and at an early stage. This confirms one of the hypotheses.

Conclusion. Therefore, I believe that PSA as a screening method is an effective and important method in the diagnosis of prostate cancer.

ASSOCIATION BETWEEN TRAVEL TIME TO HOSPITAL AND 30-DAY MORTALITY AFTER ACUTE STROKE AND MYOCARDIAL INFARCTION IN LATVIA

Čerāne-Šillere, Laura, Bārzdiņš, Juris

University of Latvia, Rīga, LATVIA; lauracerane@gmail.com

Background. The 30-day mortality after acute stroke and myocardial infarction in Latvia is consistently higher than of other OECD countries, highlighting the need to identify contributing factors.

Latvia's well-established infrastructure for anonymised, personalised administrative healthcare data provides extremely valuable information that provides a possibility to find possible causative factors for the high 30 day mortality of patients.

Aim. The aim of the current study was to investigate the association between 30 day mortality after acute stroke and myocardial infarction and the estimated time it takes for the patient to get transported to a hospital from their place of residence.

Methods. This retrospective study analysed anonymised data from the Latvian Health Care Monitoring Datalink (2018–2022). A total of 21,608 patients with acute stroke (ICD-10 code I63, I64) and 8216 patients with myocardial infarction (ICD-10 code I21, I22) were included, their place of living was matched with the closest level 4 or 5 hospitals in Latvia, and the patients were grouped in six groups based on the estimated travel time to the hospital. This data was compared to the 30-day mortality in order to find a possible link between the place of residence and 30-day mortality.

Results. Preliminary analyses indicate an overall 30-day mortality rate of approximately 18.4% for myocardial infarction and 26.9% for acute stroke. While an upwards trend was noted, no statistically significant association between the place of residence and the 30-day mortality was noted for either disease.

Conclusion. Based on the preliminary analysis, no association was found between the place of residence and 30-day mortality for myocardial infarction and acute stroke. These results indicate that other factors likely contribute to the high mortality rates in Latvia, further investigations must be performed.

Acknowledgements. The authors declare the absence of a conflict of interest.

EPIDEMIOLOGICAL ASPECTS OF CERVICAL CANCER IN UZBEKISTAN

Djanklich, Sayde[1], Tillyashaykhov, Mirzagaleb[1], Ibragimov, Shavkat[1], Imamov, Olim[1], Berkinov, Alisher[2], Seitshayeva, Venera[1], Sabirdjanova, Zulfiya[1], Ismailova, Umida[3], Asrarova, Guzal[1]

[1] Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology, Tashkent, UZBEKISTAN; saydesha@mail.ru

[2] Tashkent city branch of Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology, Tashkent, UZBEKISTAN

[3] Tashkent Medical Academy, Tashkent, UZBEKISTAN

Background. Cervical cancer is the third most frequent disease among women in the world, which accounts to more than 9% of the total number of newly diagnosed malignant neoplasms in the female population, with more than 85% newly diagnosed cervical cancer cases refer to developing countries. According to Globocan 2022, there were registered more than 662 thousand new cases and more than 348 thousand of death from cervical cancer all over the world. In the Republic of Uzbekistan, cervical cancer remains the most common cancer type and the leading cause of cancer death.

Aim. The aim of the study is to analyse the main statistical indicators of cervical cancer for the last 14 years in Uzbekistan.

Methods. To analyse the condition of cervical cancer burden we collected incidence, mortality data and clinical stage on cervical cancers from official statistics in Uzbekistan for years 2010–2023.

Results. The most commonly diagnosed cancer for both sexes in Uzbekistan is breast (17.2%), followed by stomach (7.9%) and cervical (7.1%) cancer. Meanwhile for women

the most frequently occurring cancers are breast (28.1%), cervical (11.9%), and ovarian (6.6%) cancer. Thus, the number of newly diagnosed patients with cervical cancer over the last 14 years has increased from 1220 to 1884 cases and incidence rate per 100,000 population — from 4.3 to 5.6. The average age of patients with cervical cancer was 53.2 ± 0.45. In 2010, over 41% of cervical cancer patients were registered at stages III–IV, but in 2023 there were only 25.6% of advanced cases. Moreover there was an increase in early stages of cervical cancer in Uzbekistan — from 57.8% in 2010 and 72.1% in 2023. Moreover, 11,588 patients died from cervical cancer for the last 14 years, while the mortality rate was 2.3 in 2010, and 2.6 in 2023 per 100,000 population.

Conclusion. In conclusion it can be shown that cervical cancer incidence has tendency to increase in the Republic of Uzbekistan. 45–65 years old women are more likely to develop cervical cancer in Uzbekistan. Over the last 14 years, there was a decrease of advanced (III–IV) stages of cervical cancer cases and a raise of early stages of the disease.

AGE AND SEX PATTERNS OF KIDNEY CANCER INCIDENCE IN KAZAKHSTAN: A 15-YEAR ANALYSIS

Dyakov, Sergey[1], Igissin, Nurbek[2], Shishkin, Ivan[3]

[1] National Scientific Center of Traumatology and Orthopedics named after Academician N. D. Batpenov, Ministry of Health of the Republic of Kazakhstan, Astana, KAZAKHSTAN; Kyrgyz State Academy named after Akhunbaev, Bishkek, KYRGYZ REPUBLIC; Central Asian Institute of Medical Research, Astana, KAZAKHSTAN; sergey_djakov@mail.ru

[2] Research Institute of Life and Health Sciences, Sh. Ualikhanov University, Kokshetau, KAZAKHSTAN

[3] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN

Background. According to IARC, 434,840 new cases of kidney cancer (KC) were registered in 2022, ranking it 14th among all cancer types, with 155,953 deaths from this type of cancer. The number of people with KC in Kazakhstan is also growing

Aim. To identify age and sex characteristics of KC incidence in Kazakhstan.

Methods. A retrospective study for 2005–2019, based on data from the electronic registry of cancer patients in Kazakhstan (ICD-10, C64). Population data were taken from the official website of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. Descriptive and analytical methods of epidemiology and medical statistics were used.

Results. Over a 15-year period, 15,277 new cases of KC were registered, of which 8202 (53.7%) were men and 7075 (46.3%) were women. The mean age of patients with KC was 58.5 years (95% CI = 58.0–59.0) overall, 58.2 years (95% CI = 57.7–58.7) in men and 58.8 years (95% CI = 58.1–59.5) in women, the difference in men was not statistically significant ($p = 0.201$). The age-specific incidence rate showed a unimodal increase with a peak at 65–69 years old — 32.2 160/0000 (95% CI = 29.0–35.4) with an increase rate T = +3.7%, R2 = 0.6887 in general, and in men 70–74 years old — 44.7 2.30/0000 (95% CI = 40.3–49.1) with an increase rate T = +2.7%, R2 = 0.3979, in women 65–69 years old — 25.8 1.30/0000 (95% CI = 23.2–28.3) with an increase rate T = +3.4%. The standardised incidence rate for the study period was 6.3 0.10/0000 (95% CI = 6.1–6.5), the average annual growth rate was T = +0.8%, R2 = 0.3813 in general, and 8.1 0.10/0000 (95% CI = 7.9–8.3) with the growth rate T = +0.6%, R2 = 0.2983 in men and 5.0 0.10/0000 (95% CI = 4.8–5.3) with the growth rate T = 0.9%, R2 = 0.2781, the difference was statistically insignificant ($p < 0.05$, t = 1.972)

Conclusion. Age and sex differences in KC incidence in Kazakhstan correspond to the global trends, but some features related to the demographic structure of the country were identified. These data should be taken into account when developing programmes for screening, prevention and treatment of the disease.

Acknowledgments. The authors express their gratitude to the Ministry of Health for providing the data for the study.

GEOGRAPHIC VARIABILITY OF RICKETS INCIDENCE IN KAZAKHSTAN

Kozhakhmet, Karina[1], Shishkin, Ivan[1], Bilyalova, Zarina[2], Igissin, Nurbek[3]

[1] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN; karinakozahmet@gmail.com

[2] Central Asian Institute for Medical Research, Astana, KAZAKHSTAN

[3] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

Background. Rickets incidence has geographic variability, which may be due to latitudinal and longitudinal features of the regions.

Aim. To assess regional differences in rickets incidence in Kazakhstan.

Methods. The study material was the data of the Ministry of Health of the Republic of Kazakhstan on new cases of rickets (ICD 10: E55.0) for 10 years (2009–2018). Rickets incidence rates were determined based on the value of the standard deviation (d) from the mean (x), cartograms were compiled, and average annual growth rates (T, %) were calculated. and the degree of approximation reliability (R2).

Results. During the study period, the incidence of rickets in Kazakhstan was 187.5 ± 14.8 (95% CI = 158.4–216.5) per 100,000 children's population. The spatial-temporal assessment of rickets incidence revealed the regions and also determined their trend in dynamics:

1. With a low incidence rate (up to 125.3 by 100,000): Akmola (34.0 ± 2.0; T = +1.1%, R2 = 0.0265), Astanacity (43.6 ± 4.8; T = +6.3%, R2 = 0.2149), North Kazakhstan (67.8 ± 7.2; T = –12.1%, R2 = 0.8822), Kostanay (76.9 ± 8.4; T = ?13.0%, R2 = 0.9121), Pavlodar (105.4 ± 9.3; T = –10.3%, R2 = 0.7209) regions.

2. Average level (from 125.3 to 252.7 per 100,000): Almaty (83.9 ± 8.1; T = –10.3%, R2 = 0.7323), South Kazakhstan (144.4 ± 10.3; T = –6.4%, R2 = 0.5542), Kyzylorda (148.9 ± 15.0; T = –12.1%, R2 = 0.9191), Karaganda (149.0 ± 13.0; T = –10.9%, R2 = 0.8373), East Kazakhstan (179.6 ± 15.5; T = –10.8%, R2 = 0.9607), Zhambyl (425.1 ± 32.4; T = –9.8%, R2 = 0.9564), Almaty (467.6 ± 46.2, T = –11.3%, R2 = 0.9254).

3. With a high level (252.7 per 100,000 and above): Aktobe (254.0 ± 12.9, T = –6.0%, R2 = 0.9427), Mangystau (262.3 ± 35.9; T = –14.2%, R2 = 0.7768), Atyrau (283.0 ± 18.6; T = –7.6%, R2 = 0.8919), West Kazakhstan (298.5 ± 30.6; T = –11.3%, R2 = 0.9087) areas.

Conclusion. The obtained data confirm the pronounced regional differences in the incidence of rickets, which may be associated with climatic and environmental factors. Modelling of the detection of the disease demonstrated a dependence on the latitude-longitude characteristics of the regions. Study results can be used to develop targeted preventive programmes taking into account the regional characteristics.

Acknowledgments. The authors confirm that there is no conflict of interest. They also express gratitude to the Ministry of Health of the Republic of Kazakhstan for providing primary materials.

SELF-MONITORING OF HEALTH INDICATORS AND LIFESTYLE OF LUHS STUDENTS USING SMART TECHNOLOGIES

Kregždytė, Rima, Kivilšienė, Vilma

Lithuanian University of Health Sciences, Kaunas, LITHUANIA; Rima.Kregzdyte@lsmu.lt

Background. In order to improve health and lifestyle, it is necessary to monitor their indicators. Smart technologies are currently being developed rapidly. They are used in various areas of health, including for health and lifestyle monitoring. Research on the use of smart technologies in various populations is important.

Aim. The aim of the study was to assess LUHS students' self-monitoring of health indicators and lifestyle using smart technologies by assessing the variety of smart devices used by LUHS students for health and lifestyle monitoring and the reasons for their choice, as well as by assessing the students' self-monitoring of health indicators and lifestyle using various smart devices, and the association with their health self-assessment.

Methods. Quantitative cross-sectional study with an online anonymous questionnaire was conducted in 2023. Students of Lithuanian University of Health Sciences (LUHS) from seven faculties participated in the study (n = 296). Statistical analysis was performed using IBM SPSS Statistics 29.0. The chi-square test or Fisher's Exact test was used to compare categorical variables. Results were considered statistically significant when $p < 0.05$.

Results. The majority of respondents (91.6%) use smart technologies to self-monitoring of lifestyle and more than half respondents (55.7%) use them to monitor health indicators. Students use smartphones (82.1%), smart watches (41.6%), and smart fitness trackers (10.8%). 35.7% of respondents have been using them for more than 3 years, oth-

ers — less. The main reasons to use smart technologies for health and lifestyle monitoring are curiosity (59.1%) and the desire to live a healthy life (39.9%).

Students most often (55.4%) monitor their pulse, 33.1% monitor their heart rate, and 22.0% monitor their blood oxygen levels. More than one-third of the surveyed students reported improved health indicators after starting to monitor them using smart devices for the muscular and skeletal system (34.8%), the nervous system/emotional health (31.1%), and almost a third noticed a positive impact on the cardiovascular (27.7%) and respiratory (28.7%) systems.

When monitoring their lifestyle, respondents most often indicated that they use smart devices to monitor steps taken (86.5 percent) and distance travelled (73.0 percent). Slightly less often — for calorie counting (41.6%) and sleep monitoring (41.2%). It was found that the majority of respondents (73.3%) indicated that using smart devices and apps significantly improved their physical activity. Almost a half of respondents (44.5%) noticed improved nutrition after they started using smart devices.

Conclusions. Most of LUHS students surveyed the use smart technologies to monitor their lifestyle. The most commonly used device for this is a smartphone. Respondents using smart technologies notice improved lifestyle and health.

RIGHT TO LIFE AND PATIENT REDRESS IN FATAL DELIRIUM CASES: A RETROSPECTIVE CASE SERIES ANALYSIS

Losevica, Marina[1], Konstantinova, Karīna[2], Losevics, Aleksandrs[3], Svirska, Larisa[4], Turkins, Raitis[5]

[1] Clinic Dzintari, Jūrmala, LATVIA; karinaokk@gmail.com

[2] University of Latvia, Rīga, LATVIA

[3] National Mental Health Centre, Rīga, LATVIA

[4] Rīga East University Hospital Gaiļezers, Rīga, LATVIA

[5] Jelgava City Hospital, Jelgava, LATVIA

Background. In medical emergencies, people enjoy the highest level of state-guaranteed protection of their human and patient rights. In fatal cases, impartial investigation, redress, and guarantees of non-repetition must be provided.

Acute delirium is a common medical emergency with a high mortality rate, nobody is immune to delirium. In Latvia, no legislation or state-of-art "soft law" guidance on intrahospital delirium prevention and management exists; the delirium screening and detection scales are not available. Delirium tremens patients are mostly referred to separate-standing mental hospitals with limited access to medical care.

Presently, the national inpatient care standards are being elaborated. Therefore, for quality improvement, it is crucial to perform death audits and formulate the State's duties toward this vulnerable patient group.

Aim. To describe the pitfalls in delirium hospital care; barriers to the right for compensation of damages; formulate State obligations and propose practice changes.

Methods. A retrospective data audit approach and case analysis method were applied to analyse the publicly available secondary data on fatal hospital cases of delirium. A human rights approach was used to formulate relevant State obligations.

Results. Four fatal cases of delirium (n = 4, male, 2016–2023) are analysed.

The pitfalls of care in different state-run highly specialised hospitals were detected:

1) unavailability of medical care in mental hospitals (Cases 1 and 4);

2) lack of state-of-art delirium screening, management, and safety measures in high-risk medical patients (Cases 2 and 3);

3) medical malpractice (Case 3).

The questionable objectivity and impartiality of the Healthcare Inspectorate expert testimonies were detected as the main barrier to the compensation of damages (Cases 2, 3, and 4).

Conclusion. The current legal and medical practice does not guarantee the right to life, redress, and non-repetition for delirium patients, jeopardising the healthcare practitioners to the liability risk.

To ensure that the State obligations are in line with the ECHR Article 2, the legal regulation amendment and practice improvement are required, inter alia: delirium patients should not be admitted to separate-standing mental hospitals; delirium risk assessment, screening, and management plans should be introduced for high-risk medical inpatients and enforced by the law. The issue of the right to complaint and redress should be scrutinised by legal scholars.

Acknowledgements. The authors have no conflicts of interest to disclose. The authors have no financial or non-financial interests to disclose. The authors acknowledge the Project "Towards a human rights approach for mental health patients with a limited capacity: a legal, ethical and clinical perspective, lzp-2020/1-0397".

PATIENTS' PERSPECTIVES ON PATIENT RIGHTS IN LATVIA: FROM AWARENESS TO IMPLEMENTATION AND STRENGTHENING

Mežinska, Signe[1], Ersts, Pēteris[2], Mileiko, Ilze[1], Tzivian, Lilian[1], Šteina, Eva[1,2]

[1] Faculty of Medicine and Life Sciences, University of Latvia, Rīga, LATVIA; signe.mezinska@lu.lv

[2] Pauls Stradiņš Clinical University Hospital, Rīga, LATVIA

Background. Implementation of patient rights plays a crucial role in ensuring the quality of healthcare systems by establishing health care practices prioritising human dignity, autonomy, individual and public benefit, patient safety and justice.

Aim. The aim of the study was to evaluate gaps in the implementation of patient rights and the empowerment of patients in Latvia from their perspective across four contexts: visits to family physicians, visits to specialist physicians, hospital stays, and use of the e-health system.

Methods. A questionnaire in Latvian was developed by the authors. The first part of the questionnaire explored patients' experience of implementing patient rights during visits to family physician, physician specialists and hospital stays. The second part included questions on respondents' knowledge and experience of using the electronic e-health. The survey was conducted in 2024 and enrolled a representative sample of 1133 respondents. Statistically significant differences were considered as $\alpha < 0.05$.

Results. There were statistically significant differences in the experience during visits to family physicians and specialist physicians in all survey statements except the statement on discriminatory attitudes. In most cases, these differences were in favour of the specialist physician indicating a more positive experience. Visits to specialist physicians were more positively evaluated also in comparison to the hospital. On average, women reported more positive experience with implementing their patient rights than men, respondents with higher education reported less positive experience than those with lower levels of education, respondents living in rural areas reported more positive experience than those living in cities, in all three healthcare contexts.

The three most prominent reasons for not using the e-health system — regarding providing information and making treatment-related decisions by significant others, and second — regarding the use of organs and tissues after death were a lack of willingness to make such a decision (38.9% and 50.6%, of participants, respectively), perceived lack of importance of such action (36.5% and 25.3%, respectively) and lack of general digital skills to use e-health (11.3% and 6.1%, respectively).

Conclusion. The study highlights the opportunities to improve the implementation of patient rights in most of the researched aspects. The results emphasise the importance of structured discharge processes and clear communication to enhance patient autonomy and trust. Additionally, the study suggests that improving digital literacy among specific groups and involving diverse patients in the design of e-health tools can strengthen patient rights and satisfaction.

Acknowledgements. This study is part of the project "Evaluation and Improvement of Health-Literacy in Latvia: Development and Validation of the Population-Centred Awareness Platform For Lifestyle-Related Risks Assessment and Surveillance" funded by Latvian Council of Science (no. VPP-VM-Sabiedrības_Veselība-2023/1-0003).

THE PSYCHOLOGICAL EFFECTS OF SOCIAL MEDIA EXPOSURE ON UNIVERSITY OF LATVIA STUDENTS DURING THE WAR IN UKRAINE

Osundu, Marshall[1], Ražuks, Romualds[2]

[1] University of Latvia, Rīga, LATVIA

[2] Faculty of Medicine, University of Latvia, Rīga, LATVIA; romualds.razuks@lu.lv

Background. In the current era of extensive social media reach, influence and usage, the psychological effects of the Ukraine conflict extend far beyond the boundaries of traditional mass media. Social media platforms provided unfiltered insight into an endless stream of disturbing images triggering negative emotional responses amongst its viewers.

Aim. The aim of this study is to investigate the psychological effects of social media exposure on the University of Latvia students during the war in Ukraine.

Methods. The data in this study were collected using an anonymous bilingual Likert questionnaire sampling method that was accessible in both English and Latvian. The questionnaire was distributed through a Google survey link. The inclusion criteria were: Latvian University students, age 17 years and older and social media platform users. The Likert-scale questionnaire was graded using a 5-point and 2-point grading scale, and the results were analysed using descriptive analysis (frequency, percentages, cross-tabulation analysis) and inferential statistics (Spearman's correlation analysis). This analysis was performed using IBM SPSS software version 29.0.

Results. A total of 52 students participated in the study, of which 86.5% were female, 11.5% were male, and 1.9% were others. Most of the participants were younger female within the age group of 21–25 (50%). Most students (63.4%) regularly encountered conflict-related content on their media feed, with a significant portion actively seeking out news (17.3%). Of the 53.8% of participants who relied on social media as a source of news, 36.5% reported having an increased level of stress, anxiety and depression. A substantial number of students (32.7%) experienced a decline in academic concentration and academic performance (21.1%). Prolonged exposure (67.3%) was associated with increased levels of stress, anxiety and depression, particularly among younger female students (57.7%). This effect also correlated with a decline in academic concentration and performance ($p < 0.001$; $p = 0.028$). Positive correlation was found between frequency of seeking news, pre-existing mental health conditions and increased levels of stress, anxiety and depression ($p < 0.001$; $p < 0.001$). 38.4% of students expressed a willingness to seek psychological support, but most (67.3%) were not aware of the mental health services available at the university.

Conclusion. Prolonged exposure to conflict-related content on social media correlates with increased levels of stress, anxiety, and depression, particularly among younger female students. This effect was also linked to a decline in student academic performance. It is essential to increase awareness of available mental health services and support.

FACTORS RELATED TO MEDICATION ADHERENCE IN MULTIMORBID PATIENTS IN GULBENE AND RĪGA

Paberza, Diana[1], Mača, Līva[2]

[1] University of Latvia, Rīga, LATVIA; paberzadiana@gmail.com

[2] Department of Psychosomatic Medicine and Psychotherapy, Faculty of Medicine, Rīga Stradiņš University, Rīga, LATVIA

Background. WHO data shows that about 50% of patients fail to follow medical instructions for chronic disease treatment, leading to poorer health, increased costs, higher utilisation of healthcare services, and greater risks of hospitalisation and mortality. This study aimed to identify factors influencing multimorbid (coexistence of two or more chronic illnesses) patients' adherence to medication use from a subjective perspective and compare results from patients in Rīga and Gulbene.

Aim. The aim of the study was to identify factors affecting multimorbid patients' adherence to medication use from a subjective perspective and to compare the results between patients in Rīga and Gulbene.

Methods. Nine semi-structured interviews were conducted with multimorbid patients living in Gulbene. The interviews were recorded, transcribed, coded, and analysed using inductive content analysis. The data obtained in this study were compared to those from a similar study done in 2023 involving nine multimorbid patients living in Rīga.

Results. Summarising and analysing the collected data, two groups of patients were identified: adherent and non-adherent patients. For adherent patients living in Gulbene, the primary motivation was fear for their health and pain. Factors influencing non-adherent patients included the cost of medications, difficulties accessing general practitioners from rural areas, and a lack of knowledge about the necessity of medications. For adherent patients living in Rīga, the main motivation was improving their well-being. In contrast, the factors influencing non-adherent patients included ignorance, unwillingness, and fear of medications. In both studies, non-adherent patients highlighted forgetfulness and a lack of knowledge as significant factors, while adherent patients demonstrated better theoretical knowledge about medication use and emphasised the importance of establishing a routine as a helpful strategy.

Conclusion. According to the study data, adherence could be improved by simplifying medication regimens, using medications that contain more than one active ingredient and providing patients with more information about the importance of taking their medications.

CANCER OF THE FEMALE REPRODUCTIVE ORGANS IN UZBEKISTAN

Sabirdjanova, Zulfiya, Isanbaeva, Asalat, Djanklich, Sayde, Ibragimov, Shavkat, Berkinov, Alisher, Seitshayeva, Venera

Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology, Tashkent, UZBEKISTAN; saydesha@mail.ru

Background. Malignant tumours of the reproductive system (MTRS) are the most prevalent cancers in women.

While the incidence of MTRS in Central Asian countries is lower than in Europe and the United States, Uzbekistan has witnessed a gradual increase in the prevalence of these cancers among women. The contributing factors include a rise in the number of women affected by obesity, endocrine disorders, viral infections, infertility, and other related conditions. Continued investigation into the various etiological factors contributing to MTRS in the female population of Uzbekistan remains a crucial public health challenge.

Aim. To analyse the trends in morbidity and mortality due to MTRS in the Republic of Uzbekistan for the year 2023.

Methods. The study was based on statistical data extracted from official statistical report in 2023.

Results. The data on MTRS for 2023 revealed that a total of 3953 cases were diagnosed in the Republic, including 1884 cases of cervical cancer (CC), 991 cases of ovarian cancer (OC), 895 cases of endometrial cancer (EC), 92 cases of trophoblastic disease (TD), 75 cases of vulvar cancer (VC), and 16 cases of vaginal cancer (VCg). Rural residents accounted for 2403 cases (60.7%). The age of the patients ranged from 4 years to over 80 years, with the highest incidence observed in the 50–64 age group (1808 cases). The majority of MTRS cases were cervical, endometrial and ovarian cancers, most of which were diagnosed at stage II, with proportions of 53.7%, 42.2%, and 39.8%, respectively. The mortality rate remained high for CC at 1.7 (940 deaths) and OC at 1.4 (413 deaths), while the mortality rate for EC was 0.9 (284 deaths). The 5-year survival rates were 42.4% (2669) for EC, 46.4% (4482) for CC, and 40.7% (2094) for OC.

Conclusion. In 2023, cervical cancer ranked as the second most common cancer in Uzbekistan, both in the overall cancer incidence and among women, following breast cancer. The implementation of comprehensive screening programs, the enhancement of "Onco-Screening" offices, widespread preventive examinations for the female population, promotion of a healthy lifestyle, and timely diagnosis and treatment of reproductive organ diseases are essential strategies to significantly reduce the number of women in high-risk groups for MTRS.

EPIDEMIOLOGICAL TRENDS OF CROHN'S DISEASE AND ULCERATIVE COLITIS IN KAZAKHSTAN

Salki, Adil[1], Igissin, Nurbek[2], Moldagali, Rustem[3], Murzagulov, Nurymzhan[4], Shishkin, Ivan[4]

[1] Akhunbaev Kyrgyz State Medical Academy, Bishkek, KYRGYZ REPUBLIC; adil.salki1@gmail.com

[2] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

[3] Kokshetau Higher Medical College, Kokshetau, KAZAKHSTAN

[4] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN

Background. Crohn's disease (CD) and ulcerative colitis (UC) are chronic inflammatory bowel diseases with increasing global prevalence. However, limited epidemiological data in Kazakhstan hinder the assessment of disease dynamics and factors influencing their spread.

Aim. To analyse trends in the incidence of Crohn's disease and ulcerative colitis in Kazakhstan.

Methods. A retrospective analysis (2013–2018) was conducted on new cases of CD and UC (ICD-10: K50 and K51) based on data from the Ministry of Health of the Republic of Kazakhstan (Form No. 12). Descriptive and analytical epidemiological methods were used.

Results. During the study period, 21,869 new cases of CD and UC were registered in Kazakhstan, including 5356 cases of CD (24.5%) and 16,513 cases of UC (75.5%). The overall incidence of CD and UC was 21.0 2.6 per 100,000 (95% CI=15.9–26.0), with statistically significant dynamic differences (p = 0.000, t = 1.972). The average annual decline rate was T = –4.2% (R2 = 0.6897). Gender differences are presented in the table.

Table. Average annual incidence rates of UC and CD by gender in Kazakhstan, 2013–2018

Disease	Men	Women
	Cases (%), M m	Cases (%), M m
Ulcerative colitis	6,787 (75.1%) 13.4 ± 1.7	9,726 (75.8%) 18.0 ± 2.8
Crohn's disease	2,249 (24.9%) 4.5 ± 0.8	3,107 (24.2%) 5.8 ± 1.7

The average annual rate of decline in CD was T = –5.1% (R2 = 0.6897) in men and T = –7.5% (R2 = 0.6897) in women, and the average annual rate of decline in UC was T = –2.9% (R2 = 0.6045) in men and T = –3.7% (R2 = 0.6362) in women. The difference between the incidence of UC and CD in both men and women was statistically significant ($p = 0.000$, t = 1.972). The difference in the incidence of UC between men and women was not statistically significant ($p = 0.160$, $t = 1.972$). The difference between men and women in CD was not statistically significant ($p = 0.489$, t = 1.972).

Conclusion. Despite an overall decline in the incidence of CD and UC, the observed regional differences and temporal variations require further investigation. Additional research is needed to assess the impact of diagnostic practices, healthcare accessibility, and risk factors on the prevalence of these diseases.

Acknowledgments. The authors express their gratitude to the Ministry of Health of the Republic of Kazakhstan for providing the data. This study was conducted with the support of the Ministry of Science and Higher Education of the Republic of Kazakhstan, Project No. AP23484165 "Clinical-Diagnostic and Morphological Determinants of Large Intestinal Diseases in Kazakhstan: Innovative Approaches and Solutions".

TRENDS IN PROSTATE CANCER INCIDENCE IN KAZAKHSTAN

Shishkin, Ivan[1], Ermek, Nariman[2], Igissin, Nurbek[3]

[1] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN; dr.ivan.shishkin@gmail.com

[2] Academy of Public Administration under the President of the Republic of Kazakhstan, Astana, KAZAKHSTAN; Central Asian Institute for Medical Research, Astana, KAZAKHSTAN

[3] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

Background. Prostate cancer (PC) is a prevalent oncological disease in men, posing a major public health challenge. In 2022, the Global Cancer Observatory (IARC, WHO) reported approximately 1.5 million new cases and 400 thousand deaths, ranking it 4th after lung, breast, and colorectal cancers.

Aim. To assess the incidence of PC among the population of Kazakhstan.

Methods. The study is retrospective for 2005–2019, based on data from the electronic registry of cancer patients in Kazakhstan (ICD-10 code C61). Population data were taken from the official website of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. Descriptive and analytical methods of epidemiology and medical statistics were used.

Results. Over 15 years of the study, 14,740 new cases of prostate cancer were registered in Kazakhstan. The largest proportion of patients fell on the age group of 60–79 years. The average age of patients was 69.6 ± 0.2 years (95% CI = 69.1–70.1) and increased dynamically from 69.6 ± 0.3 years in 2005 to 70.7 ± 0.2 years in 2019, the differences were statistically significant (t = 3.05, $p = 0.000$). The trends in age-related incidence rates had different tendencies: the greatest decrease was observed in the 35–39 year old group (T = –13.5%, R2 = 0.3477), and the greatest increase was observed in the 65–69 year old age group (T = +7.7%, R2 = 0.5138). The average annual crude incidence rate was 11.9 ± 1.0 per 100,000 population (95% CI = 10.0–13.9), with a dynamic increase from 8.1 ± 0.3 per 100,000 (95% CI = 7.4 – 8.7) in 2005 to 13.7 ± 0.4 per 100,000 (95% CI = 13.0–14.5), the differences were statistically significant (t = 11.20, $p = 0.000$). Age-specific analysis revealed a unimodal increase with a peak in the 75–79 year old group: 208.1 ± 13.5 per 100,000 population (95% CI = 181.6–234.5). The standardised incidence rate was 17.0 ± 1.3 per 100,000 (95% CI = 14.6–19.5), increasing dynamically from 11.9 ± 0.5 per 100,000 (95% CI = 10.8–13.0) in 2005 to 18.7 ± 0.6 per 100,000 (95% CI = 17.7–19.8), the differences were statistically significant (t = 8.71, $p = 0.000$). Over the study period, the standardized rate tended to increase T = +5.6% (R2 = 0.7054).

Conclusion. Over the study period, the incidence of prostate cancer among men in Kazakhstan increased, with the highest incidence at the age of 60–79 years. This highlights the need for targeted screening programmes for early detection and development of regional prevention strategies taking into account age and demographic characteristics.

Acknowledgments. The authors thank the Ministry of Health of the Republic of Kazakhstan for providing data for this study.

THE ATTITUDE TO VACCINATION IN SCHOOLCHILDREN AGED 10 TO 19 YEARS

Strukcinskiene, Birute[1], Jurgaitis, Jonas[1], Grigoliene, Rasa[1], Martisauskiene, Dalia[1], Steponkus, Darius[1], Genowska, Agnieszka[2]

[1] Faculty of Health Sciences, Klaipeda University, Klaipeda, LITHUANIA

[2] Department of Public Health, Medical University of Bialystok, Bialystok, POLAND

Background. Vaccination is the best way to prevent illness and reduce the risk of contracting infectious diseases. Children still die every year from diseases that can be prevented by vaccines. Teenagers and young people are the future parents who will make decisions about the vaccination of their children. Adolescence is when children become more independent, less dependent on their parents, more aware, and able to make important decisions that affect their health. They learn to critically evaluate and select science-based information, choose values to set their priorities and develop an attitude toward vaccination.

Aim. The study aimed to investigate self-reported attitudes to vaccination in schoolchildren, aged 10 to 19 years.

Methods. The study was conducted in Lithuania, and 340 schoolchildren (161 male and 179 female) participated in the survey from 5–8th and 9–12th grades. The study participants were selected by random sample. A chi-square test and Spearman's correlation coefficient were applied.

Results. The study revealed that the majority (88.8%) of schoolchildren were vaccinated according to the children's vaccination calendar. More than a half of schoolchildren lack information about vaccines. Girls are better informed than boys. The majority of participants have never heard about human papillomavirus (HPV). Most schoolchildren plan to vaccinate their future children according to the provided vaccination calendar and only a limited percentage do not plan to do so. However, the majority of participants do not know about additional vaccines (for instance, against influenza, tick-borne encephalitis, HPV etc.) or do not plan to use them for their children. The minority of schoolchildren are not going to vaccinate their children against COVID-19.

Conclusions. Their parents and insufficient knowledge about vaccines, which determines their decision to be vaccinated, influence schoolchildren's attitudes towards vaccination. The study showed that children and young people should be educated as early as possible about vaccination and immunisation.

Acknowledgements. The authors declare the absence of a conflict of interest.

CPR READINESS AMONG MEDICAL COLLEGE STUDENTS

Upenieks, Reinis, Afremovičs, Leonīds

Pauls Stradiņš Medical College, University of Latvia, Rīga. LATVIA; reinis.upenieks@gmail.com

Background. Medical students are often perceived by others as being "connected to medicine". In emergencies, bystanders instinctively seek help from individuals associated with the medical field, often placing medical students in situations requiring immediate action. The possibility of such situations and the necessity to respond appropriately — which may influence public perceptions of medical education quality — underscore the importance of this study.

Aim. This study aims to assess the cardiopulmonary resuscitation (CPR) knowledge and skills of medical college students in accordance with Basic Life Support (BLS) guidelines [1].

Methods. The study consists of two parts. First, a knowledge assessment was conducted using an adapted survey from a European study on medical students [2], administered online. Second, CPR skills were evaluated in an out-of-hospital cardiac arrest (OHCA) scenario. A CPR manikin hardware and software provided quantitative measures, including chest compression rate and depth, ventilation rate and volume. Observations were also made using a checklist based on the BLS algorithm.
Participants were students from medical colleges in Latvia, aged 19 to 49 years (mean: 29.64 ± 8.87 years); the majority (81.9%) were women. The study is ongoing.

Results. Preliminary findings indicate that Latvian students' CPR knowledge is comparable to that of other European medical students, for instance:

- 75.0% felt ready to assist in an OHCA scenario,
- 34.7% correctly identified OHCA signs,
- 34.7% knew the correct actions for choking,
- 52.8% knew the appropriate timing for using an AED.

CPR skills assessment results:

- Overall CPR performance score (Laerdal QCPR): 0–96% (mean: 29.58 ± 29.73),
- Chest compression score: 0–99% (mean: 39.20 ± 37.81),

• Ventilation score: 0–99% (mean: 16.95 ± 29.90),

• Chest compression fraction: 1–100% (mean: 63.22 ± 17.52).

Checklist-based observations revealed:

• 9.1% checked scene safety,

• 80.5% assessed consciousness,

• 20.8% called for help,

• 64.9% secured the airway,• 62.3% checked breathing,

• 61.0% uncovered the chest,

• 97.4% initiated chest compressions,

• 77.9% provided rescue breaths, but only 46.8% secured the airway beforehand,

• 35.5% performed actions outside BLS scope, mainly pulse checks.

Conclusion. While Latvian medical students' CPR knowledge is comparable to that of students in other countries, their practical performance varies widely, with generally moderate skill levels. These findings suggest a need to improve CPR training methods and frequency in medical colleges, given that students may be called upon to perform CPR in real-life OHCA situations.

Acknowledgements. The authors express their gratitude to all study participants for their voluntary participation.

References

1. Olasveengen, T. M., Semeraro, F., Ristagno, G., Castren, M., Handley, A., Kuzovlev, A., ... & Perkins, G. D. (2021). European resuscitation council guidelines 2021: basic life support. *Resuscitation*, **161**, 98–114.

2. Baldi, E., Contri, E., Bailoni, A., Rendic, K., Turcan, V., Donchev, N., ... & Böttiger, B. W. (2019). Final-year medical students' knowledge of cardiac arrest and CPR: We must do more!. *Int. J. Cardiol.,* **296**, 76–80.

PROSTATE CANCER IN KAZAKHSTAN: COMPONENT ANALYSIS OF INCIDENCE DYNAMICS

Yermek, Nariman[1], Igissin, Nurbek[2], Shishkin, Ivan[3]

[1] Academy of Public Administration under the President of the Republic of Kazakhstan, Astana, KAZAKHSTAN; Central Asian Institute of Medical Research, Astana, KAZAKHSTAN; uzoakm@mail.ru

[2] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

[3] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN

Background. The International Agency for Research on Cancer (IARC) reports that about 1.5 million new cases of prostate cancer (PC) were diagnosed in 2022, ranking it fourth after lung, breast, and colorectal cancer, with about 400,000 deaths attributed to PC. The number of patients with PC in Kazakhstan is also steadily increasing.

Aim. Conducting a component analysis of the dynamics of PC incidence in Kazakhstan.

Methods. A retrospective study was conducted for 2005–2019 using data from the electronic registry of cancer patients in Kazakhstan (ICD-10 C61). Population data were obtained from the Official Website of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. The dynamics of PC incidence among the population of the Republic of Kazakhstan was assessed using component analysis in accordance with methodological recommendations.

Results. During the study period, 14,740 cases of PC were registered. The incidence rate increased from 8.09 0.00/0000 (95% CI = 8.091–8.093) in 2005 to 13.74 0.00/0000 (95% CI = 13.739–13.741) in 2019 (p = 0.000. t = 1.972), the overall increase was 5.650/0000. The increase depended on the change in the age structure of the population ($\sum\Delta A$ = +0.880/0000), the risk of acquiring the disease ($\sum\Delta R$ = +4.610/0000), and the combined effect of the age structure and the risk of acquiring the disease ($\sum\Delta AR$ = +0.150/0000). Component analysis revealed that the increase in the number of patients was due to population growth (ΔP = +21.2%), changes in the age structure (ΔA = +10.0%), the combined effect of population growth and age structure (ΔPA = +2.3%), changes in the risk of developing the disease (ΔR = +52.3%), the combined effect of the risk of developing the disease and population size (ΔPR = +12.1%), the combined effect of changes in the risk of developing the disease and age structure (ΔRA = +1.7%), and the combined effect of changes in the risk of developing the disease, population size, and age structure (ΔRAP = +0.4%). The increase in the number of patients is associated with the influence of demographic factors and risk factors for developing the disease.

Conclusion. The component analysis assessed the impact of demographic and risk factors on the number of patients and prostate cancer incidence in Kazakhstan. The study's findings are recommended for use in planning and managing anti-cancer measures.

Acknowledgments. The authors thank the Ministry of Health of the Republic of Kazakhstan for supporting this study with the necessary data.

STATISTICAL ANALYSIS OF THE DYNAMICS OF OBESITY IN KAZAKHSTAN FOR 2009–2018

Zhigitai, Diaz[1], Bilyalova, Zarina[2], Igissin, Nurbek[3], Moldagali, Rustem[1], Shishkin, Ivan[4]

[1] Kokshetau Higher Medical College, Kokshetau, KAZAKHSTAN; zhgtay@mail.ru

[2] Central Asian Institute for Medical Research, Astana, Higher School of Medicine, KAZAKHSTAN

[3] Research Institute of Life and Health Sciences, Ualikhanov University, Kokshetau, KAZAKHSTAN

[4] Sh. Ualikhanov Kokshetau University, Kokshetau, KAZAKHSTAN

Background. Obesity is a major public health problem, contributing to the development of cardiovascular and metabolic diseases. In many countries, including Kazakhstan, its prevalence is increasing due to changes in lifestyle, nutrition and physical activity, which requires a detailed analysis of factors and trends.

Aim. To assess the dynamics of obesity incidence in Kazakhstan.

Methods. Retrospective study (2009–2018) based on data from the Ministry of Health of the Republic of Kazakhstan (annual form No. 12) on new cases of obesity (ICD 10: E66). Population data were taken from the Official website of the Bureau of National Statistics for Strategic Planning and Reforms of the Republic of Kazakhstan. The study was conducted using descriptive and analytical medical and biological statistics.

Results. During the study years, 167,552 cases of obesity were registered in the country, including 66,508 (39.7%) among men and 101,044 (60.3%) among women. The average annual incidence of obesity was 98.3 ± 3.6 (95% CI = 91.3–105.3) per 100,000 of the total population. Over time, the rate decreased from 82.2 ± 0.7 per 100,000 (95% CI = 80.8–83.6) in 2009 to 69.7 ± 0.6 per 100,000 (95% CI = 68.4–70.9) in 2018, while the difference was statistically significant (p = 0.000, t = 1.972). The average annual rate of decline was T = ?0.6% (R2 = 0.0142). Among men, the average annual incidence of obesity was 80.8 ± 2.2 per 100,000 (95% CI = 76.5–85.2). Over time, the incidence decreased from 70.6 ± 1.0 per 100,000 (95% CI = 68.7–72.5) in 2009 to 62.5 ± 0.8 per 100,000 (95% CI = 60.8–64.1) in 2018, the differences were statistically significant (p = 0.000, t = 1.972). The average annual rate of decline in this indicator is T = –0.5% (R2 = 0.0175). Among women, the average annual incidence was 114.6 ± 5.0 per 100,000 (95% CI = 104.9–124.4). Over time, the incidence decreased from 93.0 ± 1.1 per 100,000 (95% CI = 90.9–95.1) in 2009 to 76.4 ± 0.9 per 100,000 (95% CI = 74.6–78.2) in 2018, the differences were statistically significant (p = 0.000, t = 1.972). The average annual rate of decline was T = –0.6% (R2 = 0.0117). At the same time, the differences in incidence between men and women were also statistically significant (p = 0.000, t = 1.972).

Conclusion. Thus, despite the decrease in obesity incidence, statistically significant gender differences in its prevalence remain. The data obtained highlight the need for further study of factors influencing the dynamics of the disease and the development of targeted preventive measures considering gender and social determinants of health.

Acknowledgments. The authors express their gratitude to the Ministry of Health of the Republic of Kazakhstan for providing primary data for the study.

Mental Health

NURSES' ACTIONS TO MANAGE AGGRESSIVE BEHAVIOUR IN PATIENTS WITH DEMENTIA

Adomavičiūtė, Karolina, Jakavonytė-Akstinienė, Agnė, Sabaliauskas, Stanislav

Vilnius University, Faculty of Medicine, Institute of Health Sciences, Department of Nursing; agne.jakavonyte-akstiniene@mf.vu.lt

Background. Dementia affects individuals' personality and habits, causing them to change and become aggressive. Behavioural changes become a real challenge for those around them and healthcare professionals, especially nurses. Depending on the aggressive situation and the level of agitation in the situation, nurses use pharmacological or non-pharmacological methods to control an aggressive dementia patient.

Aim. This study aimed to identify the strategies nurses use for managing aggressive patients.

Methods. After obtaining permission from the Ethics Committee of the Institute of Health Sciences of Vilnius University, Faculty of Medicine, a qualitative semi-structured interview was conducted. Nine nurses who worked in palliative care and nursing hospitals participated in the study. Nine interviewees were women with between 1.5 years and 25 years of experience working with patients with dementia who had experienced episodes of aggression. The interview questions were divided into two groups: 1) to identify the actions nurses take to manage aggressive patient behavior and 2) sociodemographic questions. The in-

terviews were conducted individually with each respondent, face-to-face or via Zoom. The inductive thematic analysis was used to process the data.

Results. The study highlighted two main themes of nurses' actions: non-pharmacological or pharmacological actions when they can no longer calm aggressive patients. Five nurses mentioned that the first step is to have a quiet conversation with the patient and try to identify the cause of the aggressive behaviour: "Communicate in a calm tone, calm down, apologise, look for a reason for how it happened and how it influenced the aggression (…) (R7)". Some nurses stated that a patient-centred approach to nursing and knowledge of the patient's life history is essential, as diverting an aggressive patient's attention to his or her favourite activities can be an effective action: "(…) we gather much information about the patient before they arrive and can steer the conversation or activities they need, in the direction they like" (R6). Also, nurses mention that touch therapy, isolating the patient, and reducing noisy environments are all important steps in managing aggression, but training for nurses is essential: "The staff needs to be trained to work with dementia unusually. We must be prepared for any situation because the training is only so general now (R5). Few nurses stated that the first option is the administration of medicines and physical restraint of the patient because of lack of time and insufficient staff members: "(…) we inject the medication and leave it until it works and he or she becomes calmer. I want a more modern approach and focus on the patient, but staff shortages and many patients are doing their bit" (R9).

Conclusion. Recognising the causes of aggressive behaviour and applying patient-centered care is effective in managing aggressive behaviour. Nurses emphasised that talking to patients and engaging them in enjoyable activities is key to calming aggressive behaviour. However, nurses rely on their personal experience in calming aggressive patients.

Acknowledgements. There are no conflicts of interest to declare.

INCIDENCE OF DEPRESSION AMONG CHRONICALLY ILL PATIENTS

Augustova, Dana[1], Dzalbs, Ainis[2], Vaidere, Diāna[1]

[1] Rīga Stradiņš University, Rīga, LATVIA; dvaidere97@gmail.com

[2] Aina Dzalba family doctor's practice in Stalgene, LATVIA; ainisdzalbs@inbox.lv

Background. As the average age increases in the population, the number of chronically ill patients also increases. In 2018, 51.2% of the US population has at least one chronic illness. Depression is one of the most common psychiatric illnesses. According to the data of the World Health Organization, five percent of the world's population has depression. In Latvia, in 2018, the prevalence of depression reached 6.7% of the total population. Among chronically ill patients, depression is two to three times more severe.

Aim. To determine the incidence of depression among patients with chronic diseases and whether there is an association between depression and patients with chronic diseases.

Method. A prospective study among adult patients with at least one chronic illness in general practice.

Results. Out of 206 respondents, 46.6% have depression, while 1.5% of respondents have severe depression. The median age of chronic illness is 35 years. The most common groups of chronic diseases are: cardiovascular, musculoskeletal, ophthalmological. We analysed 18 groups of chronic diseases and searched for associations between chronic diseases and depression in each group separately. Among CVD patients, mild to moderate depression is 54%, and the incidence of depression in patients with musculoskeletal system is 47.7%. A statistically significant association was demonstrated for pathologies of the otolaryngological diseases. The frequency of depression is higher in the other groups, but it was not possible to obtain a statistically significant association. Patients with at least three or more chronic illnesses have depression in 54.9% of cases and only 31.1% had sought help from a mental health specialist.

Conclusions. The prevalence of depression is higher in the population of people with chronic diseases than the average prevalence of depression in the population. In the study, the incidence of depression is significantly higher than expected and only 3 out of 10 patients seek help from a mental health specialist. There is a statistically significant association between otolaryngological diseases and depression. There were no association found between other more common chronic diseases and depression. Mental health should be determine in somatically healthy patients. A chronic disease cannot be considered as a risk factor for depression anymore. The previously defined risk factors for depression are outdated in modern society, they are no longer relevant in diagnosis of depression within different patient groups.

THE RELATIONSHIP BETWEEN THE USE OF PSYCHOACTIVE SUBSTANCES AND RECURRENT DEPRESSIVE DISORDER IN ADOLESCENTS AT THE CHILDREN'S CLINICAL UNIVERSITY HOSPITAL IN THE INPATIENT DEPARTMENT OF CHILD PSYCHIATRY

Bajāre, Laura Justīne[1], Ķevere, Laura[2]

[1] University of Latvia, Rīga, LATVIA; ljbajare@gmail.com

[2] Children's Clinical University Hospital, Rīga, LATVIA

Background. The prevalence of psychoactive substance abuse in adolescents has been increasing in recent years, along with a growing occurrence of mental health disorders. Understanding the relationship between psychoactive substance abuse and depression can be important in early intervention and improve support for adolescents with depressive symptoms.

Aim. The aim of the current study was to determine if there is a statistically significant correlation between use of psychoactive substances and recurrent depressive disorder in adolescents.

Methods. A total of 150 patients (mean age 16; 81% women (n = 121) and 19% men (n = 29)) diagnosed with psychoactive substance abuse from Children's Clinical University Hospital inpatient department of child psychiatry were included in the study. The selection of patients was made using Children's Clinical University

Hospital patient database from year 2020 to 2024. The obtained data were analysed using SPSS software and Fisher-Freeman-Halton Exact Tests was used to establish the correlation of psychoactive substance use and recurrent depressive disorder.

Results. The findings revealed statistically significant correlation (p = 0.016) between psychoactive substance use and recurrent depressive disorder. Additionally, statistically significant correlation (p = 0.003) was observed between psychoactive substance use and recurrent depressive disorder with somatic syndrome.

Conclusion. This study supports the hypothesis that psychoactive substance use is associated with recurrent depressive disorder in adolescents, emphasising the need for targeted prevention and intervention strategies.

Acknowledgements. There is no conflict of interest in the study between the authors. I would like to thank Dr. Laura Ķevere and Children's Clinical University Hospital for the opportunity to do the research.

STRESS, BURNOUT, AND MORAL DISTRESS AMONG PAEDIATRIC HEALTHCARE PROFESSIONALS: A CROSS-SECTIONAL STUDY

Bļinkova, Ērika, Siča, Anastasija, Tomme, Agija

Faculty of Medicine and Life Sciences, University of Latvia, Rīga, LATVIA; erikavblinkova@icloud.com

Background. Paediatric healthcare professionals are exposed to high stress, burnout, and moral distress, particularly in hospital-based settings. Long working hours and ethical dilemmas affect their mental well-being and job performance.

Aim. To evaluate the relationship between stress, burnout, and moral distress among paediatric healthcare professionals and to assess how working hours influence well-being.

Methods. A cross-sectional study was conducted among 60 voluntary paediatric healthcare professionals (42 hospital-based, 18 ambulatory). Participants completed the Maslach Burnout Inventory (MBI), Perceived Stress Scale (PSS), and Moral Distress Scale-Revised (MDS-R). Spearman correlations and Mann-Whitney U tests were used, with $p < 0.05$ considered significant.

Results. The majority of participants (88.3%) reported moderate stress levels, while 10.0% experienced high stress. Perceived stress was significantly correlated with both emotional exhaustion (r_s = 0.498, $p < 0.001$) and depersonalisation (r_s = 0.377, p = 0.003), suggesting that higher levels of perceived stress are associated with increased burnout.

Moral distress was prevalent (MDS-R score of 78.8, IQR = 84.0), with half of participants falling into the high distress category. Hospital-based professionals worked significantly more hours per week (Median = 60, IQR = 28) than ambulatory professionals (Median = 50, IQR = 24), U = 23,500, Z = –5.992, p 0.001, r = 0.79. This workload difference may contribute to higher emotional exhaustion and distress.

Additionally, most paediatricians worked in multiple institutions (Median = 2). However, the number of workplaces was not significantly correlated with stress (p = 0.743), emotional exhaustion (p = 0.253), depersonalisation (p = 0.329), or personal achievement (p = 0.637). A weak but significant correlation was found between workplace count and moral distress (r_s = 0.257, p = 0.047), suggesting that working in multiple institutions may contribute to moral distress.

Conclusion. Paediatric healthcare professionals in this study exhibited substantial psychological strain, characterised by elevated stress, burnout, and moral distress. Stress was significantly associated with emotional exhaustion and depersonalisation, reinforcing its role in burnout. Hospital-based professionals worked longer hours and reported greater emotional exhaustion and distress than those in ambulatory settings, suggesting that workload may contribute to variations in well-being. While the number of workplaces was not significantly correlated with stress or burnout, a weak but significant association was found with moral distress, indicating that working in multiple institutions may increase ethical strain.

SOCIODEMOGRAPHIC FACTORS AND TREATMENT PATTERNS OF INPATIENTS RECEIVING INVOLUNTARY TREATMENT AT NATIONAL CENTER OF MENTAL HEALTH

Čerņika, Karīna[1], Ivanova, Jeļizaveta[1], Vrublevska, Jelena[2]

[1] University of Latvia, Rīga, LATVIA; cernikakarina@gmail.com

[2] Faculty of Medicine and Life Sciences, University of Latvia, Rīga, LATVIA;
National Centre of Mental Health, Scientific Institute of Mental Health, Rīga, LATVIA

Background. Understanding the population risk factors can help to identify more predisposed population groups to undergo involuntary treatment in psychiatric institutions based on age, gender, psychiatric disorders, etc. Identifying treatment patterns for those patients will show the presence of polypharmacy and if medication doses meet the maximum recommended daily intake. That can potentially improve existing treatment approaches.

Aim. The current study aimed to analyse the sociodemographic factors and therapeutical patterns of patients, who were assigned to involuntary treatment at the National Centre of Mental Health, Rīga, Latvia.

Methods. A retrospective observational study was conducted on adult inpatients who were assigned to involuntary treatment in a psychiatric hospital. Altogether 88 patients were enrolled in the study, the data of whom were obtained from hospital's databases for the last 30 days of the hospitalisation. The Antipsychotic Total Daily Dose Calculator was used to estimate the British National Formulary (BNF) coefficient from the recommended maximum daily dose. Data collection took time from 17 December 2024 till 4 February 2025. All data were collected in MS Excel and analysed using IBM SPSS 29.0.1.0.

Results. In total 88 inpatient's data were analysed, 86.4% (n = 76) were men and 13.6% (n = 12) were women. The mean age for the participants was 41.50 years (SD11.601, min = 18, max = 70). The maximal hospitalisation time was 6505 days, mean hospitalisation duration was 1099.61 days in all the inpatients. Most of the inpatients, 81.8% (n = 72), had a diagnosis of schizophrenia (ICD-10, F20). Therapy of the inpatients consisted of typical and/or atypical antipsychotics, mood stabilisers, and benzodiazepines in different combinations, the therapeutic doses were individually adjusted based on the symptoms and individual therapy goals. The most prescribed typical antipsychotic medication was haloperidol, received by 72.7% (n = 64) of the inpatients. The most prescribed atypical antipsychotic was clozapine received by 48.3% (n = 43) of the inpatients. The BNF coefficient of 34.1% (n = 30) of the study participants was within the recommended maximum daily dose, while the result for 65.9% (n = 58) exceeded the recommended BNF coefficient.

Conclusion. The study highlights sociodemographic trends with middle-aged people, males, and those diagnosed with schizophrenia being more frequently subjected to involuntary admission. Therapy patterns' analysis emphasises the importance of treatment safety, side effects, and long-term outcomes in inpatients. Closer monitoring, routine medication reviews, and personal treatment plans should be prioritized to minimise risks associated with polypharmacy.

Acknowledgements. None.

DEMOGRAPHIC CHANGES IN SELF-HARM-RELATED HOSPITALISATIONS AT HOSPITAL "ĢINTERMUIŽA" OVER A 10-YEAR PERIOD. 2014 VERSUS 2024

Gebele, Marta[1], Vrublevska, Jelena[2,3]

[1] Hospital "Ģintermuiža", Jelgava, LATVIA; marta.gebele@gmail.com

[2] Faculty of Medicine and Life Sciences, University of Latvia, Rīga, LATVIA

[3] National Centre of Mental Health, Scientific Institute of Mental Health, Rīga, LATVIA

Background. The prevalence of suicides in Latvia remains relatively high, which unfortunately makes this problem a permanent issue. In Latvia, 382 people committed suicide in 2014, but in 2023, 266 suicides have been committed, the number of male suicides is 5.8 times higher than that of women. [1] In 2023, a research report was published in

which were studied the prevalence of mental disorders and suicidal behaviour in Latvia, thoughts of suicide, self-harm and suicidal behaviour were found in 10.6% of respondents [2].

Aim. To assess the prevalence of self-harm-related hospitalisations in 2014 and 2024 at Hospital "Ģintermuiža". To compare demographic data from 2014 to 2024.

Methods. Retrospective study of all patients admitted to hospital in 2014 and 2024 due to self-harm in "Ģintermuiža". Descriptive statistics were used for data analysis.

Results. The number of hospitalisations related to self-harm has not changed significantly over the last decade, in 2014 they were 2% of all hospitalisations (79 patients), in 2024 they were 2.4% (77 patients). There is a decrease in the average age, in 2014 it was 35.1 (SD 18.4–51.8), where the youngest patient was 15 years old, and in 2024 it was 34.7 years (SD 13.9–55.5), where the youngest patient was 11 years old. Noticeable changes in the gender distribution, as in 2014 50.6% of hospitalised patients were men, then in 2024 men will be only 35.1%, and women 64.9%.

Conclusion. Self-harm plays an important role among hospitalised patients. Over time, there have been significant demographic changes among hospitalised patients. The gender distribution is changing, in 2024 more women than men are hospitalised due to self-harm, and the average age is also reduced. In 2024 20 minors were hospitalised due to self-harm. Although the number of suicides in Latvia decreases over time, the number of hospitalised cases related to suicide attempts over time does not change.

References

1. Suicides. Center for Disease Prevention and Control. 2024. https://www.spkc.gov.lv/lv/pasnavibas (viewed 15.10.2024).
2. Kīvīte-Urtāne, A., Rancāns, E., Vinogradova, V. V., Kursīte, M., Libora, I. *Research on the prevalence of mental disorders and suicidal behavior in Latvia.* Research report. LR Ministry of Health, Riga, 2023.

NURSING STUDENTS' INDIVIDUAL EXPERIENCES OF PEOPLE WITH DEMENTIA

Jakavonytė-Akstinienė, Agnė

Department of Nursing, Institute of Health Sciences Faculty of Medicine, Vilnius University, Vilnius, LITHUANIA; agne.jakavonyte-akstiniene@mf.vu.lt

Background. Dementia is a syndrome caused by a brain disease, usually chronic and progressive, in which many of the higher functions of the cerebral cortex are impaired: memory, thinking, orientation, comprehension, numeracy, learning, language, and reasoning. It has been found that most family members of dementia patients experience severe emotional stress.

Aim. To analyse the individual experiences of prospective nurses with sick patients.

Methods. The study took place between October and November 2024. The participants were 10 undergraduate general nursing students. Data collection: essay writing. The analysis results were divided into the following groups: 1) the most frequent symptoms in dementia patients and 2) the challenges faced in caring for a person with dementia. The analysis of the data was a qualitative thematic content analysis. The data are presented ethically, and informants are assigned codes (student 1 – S1, student 2 – S2, student 3 – S3, etc.).

Results. Dementia is characterised by memory impairment: "She would forget people's names and what she had done an hour or two before (S1), "(…) Sometimes, she repeats the same actions several times; one of her favourites is washing her face" (S3), "(…) that people with dementia often lose the ability not only to carry out everyday tasks but also to communicate and recognize people close to them" (S9). The study revealed that another symptom of dementia is aggressive behaviour: "(…) she became restless, did not understand where she was, what was going on around her, and was unable to carry out daily tasks" (S3). Five informants identified dementia patients as having impaired orientation in time and space: "(…) sometimes got lost in the area where they lived, could not find their home and were disoriented" (S1), "Such patients often live in a reality of their own making, they forget their age, forget the principles of safety, and are unable to assess the dangers of the environment" (S4), "She was like a flashback to her childhood, often talking about her parents and brothers, who are no longer alive" (S5). The most common problems she encountered were the lack of knowledge about dementia care (S1, S2) and the desperation of relatives in caring for a person with dementia (S3, S5, S6).

Conclusion. Dementia is characterised by impaired memory, aggressive behaviour, and impaired orientation in time and space. The most common challenges faced by relatives were lack of knowledge about care and distress among relatives.

Acknowledgements. There are no conflicts of interest to declare.

SUBJECTIVE FEELING OF LONELINESS AND ITS RELATION TO NARCISSISTIC PERSONALITY TRAITS AND THE HABITS OF ADDICTION INDUCING PROCESS AND SUBSTANCE USE: A PILOT STUDY

Konrāde-Jilmaza, Laura[1], Sudraba, Velga[2]

[1] University of Latvia, Rīga, LATVIA; konradelaura@gmail.com

[2] Rīga Stradiņš University, Rīga, LATVIA

Background. In recent years, the issue of social isolation has gained significant relevance. Literature and empirical studies suggest that specific personality traits may influence the subjective experience of loneliness. Notably, narcissistic personality traits have been shown to negatively impact the quality of social relationships. Furthermore, restricted social activity has been linked adverse effects on the mental well-being across the general population, with a particularly pronounced impact on younger demographics. Additionally, interrelation between the feeling of loneliness and addiction-related behaviours has also been studied with findings indicating that these factors may perpetuate a self-reinforcing cycle.

Aim. The aim of this study was to evaluate the relationship between feelings of social isolation and narcissistic personality traits among young adults, as well as the potential effects of these psychological factors on internet use and smoking behaviors.

Methods. A cross-sectional pilot study was conducted, involving 36 participants (89% women, 8% men, 3% unspecified), comprising Latvian-speaking young adults aged 18 years and above. The survey encompassed sociodemographic questions, items assessing smoking and internet use behaviours, the UCLA Loneliness Scale (Version 3; Daniel W. Russell, 1996; adapted for use in Latvia in 2009 and 2022), and the Narcissistic Personality Inventory (NPI-40; Raskin & Hall, 1979; adapted for use in Latvia in 2008 and 2020). Data analysis was performed using MS Excel and SPSS for statistical processing.

Results. The majority of respondents reported moderate (47%, n = 17) to moderate-high (36%, n = 13) levels of loneliness. A statistically significant correlation was observed between the UCLA Loneliness Scale score and four subscales of the NPI-40: Authority/Power (Spearman's correlation r = 0.528, $p < 0.01$, n = 36), Exhibitionism (r = 0.404, $p < 0.05$, n = 36), Dominance (r = 0.403, $p < 0.05$, n = 36), and Arrogance (r = 0.424, $p < 0.01$, n = 36). No statistically significant correlations were found between loneliness scores and smoking or internet use behaviours. Similarly, no significant associations were observed between NPI-40 scores and addiction-related behaviours.

Conclusion. The study revealed a significant level of loneliness among the surveyed population. The NPI-40, which assesses grandiose narcissism, provided valuable insights. Findings of the study indicate that individuals experiencing higher levels of loneliness tend to exhibit lower levels of these narcissistic traits. However, further research exploring other dimensions of narcissism (e.g., vulnerable narcissism) could offer a more comprehensive understanding of this personality construct.

Acknowledgements. No conflict of interest. No funding.

INFORMED CONSENT IN PSYCHIATRY: ANALYSIS OF THE NATIONAL PRACTICE GUIDANCE

Losevica, Marina[1], Konstantinova, Karīna[2], Losevics, Aleksandrs[3]

[1] Clinic Dzintari, Jūrmala, LATVIA

[2] University of Latvia, Rīga, LATVIA; karinaokk@gmail.com

[3] National Mental Health Centre, Rīga, LATVIA

Background. The right to informed consent (IC) is an essential element of the right to health. Documenting informed consent is critical to ensure the patient's right to complaint and redress. The three-part IC process implies setting the case-specific threshold for mental abilities, disclosing information, assessing mental capacity, and voluntariness. The IC is a prerequisite for acute mental health settings both for voluntary and involuntary patients: in addition to general IC sections, information about the legal issues should be provided.

In Latvia, the statutory law does not explicitly express mental capacity and IC. The available data indicate the widespread practice of treating incompetent inpatients as voluntary. Presently, the national quality standards for hospital mental care are being elaborated by the clinicians of the National Mental Health Centre. It is crucial to assess whether the proposed practice guidance documents are in line with the current legal and ethical requirements.

Aim. To evaluate if the novel practice guidance documents correspond to the current legal and ethical requirements and ensure the mental inpatient's rights to IC and redress.

Methods. Within the qualitative study, the national clinical practice guidance documents were analysed — IC and inpa-

tient assessment standard templates. The conclusion is made, if the templates contain the prerequisite sections and elements. The prospective identification of the consequences of the detected issues is made.

The recommendation for the improvement is proposed.

Results. In the IC template, the prerequisite legal elements are absent. The template provides for surrogate consent. The psychiatric assessment standard does not stipulate evaluation of the patient's capacity to consent.

Conclusion. The national practice guidance documents do not correspond to the modern ethical and legal standards of mental health care, do not compensate the legal lacunas: do not urge the psychiatrist to deliver right-based care; provide concealing coercion as voluntary treatment; preclude the patients from their right to redress coercion-related damages.

To ensure mental patients' rights, a major amendment should be made in the national legislation and, subsequently, in the medical practice guidance documents.

Acknowledgements. The authors have no conflicts of interest to disclose. The authors acknowledge the Project "Towards a human rights approach for mental health patients with a limited capacity: a legal, ethical and clinical perspective, lzp-2020/1-0397".

THE ELUSIVE LINK BETWEEN DEPRESSION AND DARK TRIAD TRAITS

Makoveckis, Dāniels[1], Taube, Māris[1], Vrubļevska, Jeļena[2]

[1] Rīga Stradiņš University, Rīga, LATVIA; daniilmakoveckij@gmail.com

[2] University of Latvia, Rīga, LATVIA

Background. Mental health is becoming a topical issue amongst all health care specialists, proposing itself as forefront of an integral part of wellbeing. This presents new challenges for researchers and practicing physicians alike, because depressive patients are increasing in volume. The Dark Triad personality traits (Machiavellianism (manipulativeness, cynicism), psychopathy (impulsivity, heartlessness), narcissism (grandiosity, being special)) were in the past associated with depressive disorders as well as the severity of said disorders. An interest in analysis and research into this field has resurfaced in the past decade due to lack of concrete evidence on links between the personality types and depression severity.

Aim. The aim of this study was to assess the association between Dark Triad personality types and depression severity, amount of hospitalisations, anxiety levels.

Methods. In this cross-sectional study, 30 patients who were enrolled in a subacute psychiatric ward were willingly interviewed. These patients did not have significant psychiatric comorbidities. The patients were all diagnosed with recurrent depression (F33; ICD-10).An interview was conducted after 2 or 3 weeks of the patient being stationed at the ward. These patients were analysed via Dark Triad test (Adaptation of the 2nd stage of the Latvian version of the dark triangle survey [1] and PHQ-9 (Patient Health Questionnaire-9, a depressive symptom questionnaire), TEMPS (Temperament Evaluation of Memphis, Pisa, Paris and San Diego) tests. A statistical analysis using t-tests and z-tests was conducted.

Results. The statistical analysis concluded, that severity of depression by the PHQ-9 scale, anxiety levels by GAD-7 when compared to Dark Triad personality types did not yield any statistical significance. Patients were diagnosed with mild depression (mean 10%), moderate depression (mean 13%), moderately severe depression (mean 33%), severe depression (mean 43%), as well as minimal (mean 20%) mild (mean 10%), moderate (mean 40%), severe (mean 30%).

The results show that there is a link between different action types in certain personality types, such as working as a coping mechanism is observed in Machiavellian patients (p = 0.047)

Conclusion. The results showed that although there are links between personality types and coping mechanisms, the overall severity or hospitalisation amounts did not statistically importantly differ.

References

[1] Short Dark Triad [SD3], Jones&Paulhus 2013; adaptation by Jekaterina Kuharenoka and Inese Jokste, 2023 (RSU)

PILOT STUDY ON THE EFFECTIVENESS OF DIALECTICAL BEHAVIOUR THERAPY FOR ADOLESCENTS IN HIGH-RISK YOUTH AT THE CHILDREN'S CLINICAL UNIVERSITY HOSPITAL

Priga, Patrīcija Paula, Ķevere, Laura

University of Latvia, Rīga, LATVIA; pata.priga@gmail.com

Background. Dialectical Behaviour Therapy for Adolescents (DBT-A) is a well-established, evidence based psychotherapeutic intervention aimed at mitigating self harm, suicidal ideation, and substance use in high risk youth. This programme is specifically intended for teenagers exhibiting traits of borderline personality disorder (BPD), who often present with impulsivity and difficulty regulating emotions. Although implemented at the Children's Clinical University Hospital in 2022, no previous studies have systematically evaluated its clinical impact and effectiveness in Latvia.

Aim. This pilot study aims to retrospectively assess the effectiveness of DBT-A in reducing the frequency of self-harming acts, suicidal ideation, and substance use among adolescents undergoing a six-month intensive therapy programme.

Methods. A retrospective quantitative study with a pre-post design was conducted by reviewing weekly therapeutic diaries (daily logs) completed by 16 adolescents aged 13 to 17 who finished the six-month DBT-A programme at the Children's Clinical University Hospital. Data extracted from these diaries — including records of self-harm, suicidal behaviour, and substance use — were analysed to assess changes over time.

Results. Preliminary findings suggest a substantial reduction in self-harming behaviour, substance use and suicidal ideation, accompanied by improved emotion regulation and increased utilisation of DBT skills during and after the six-month programme. Although final statistical significance is pending, these preliminary results support the potential efficacy of DBT-A in a high-risk adolescent population in Latvia.

Conclusion. The study provides initial support for the clinical effectiveness of DBT-A in decreasing self-harm, substance use and suicidal tendencies among high-risk adolescents exhibiting traits of BPD. These results offer valuable insights for optimizing treatment protocols and encouraging the broader adoption of DBT-A in clinical practice across Latvia. Moreover, by demonstrating its clinical effectiveness, this study may help attract additional financial support to make DBT-A more accessible for high-risk youth in Latvian clinical settings.

Acknowledgements. I thank the staff at Children's Clinical University Hospital for providing valuable data and information, and my study supervisor, Dr. Laura Ķevere, for their support. No conflicts of interest were reported.

PROGNOSTIC ROLE OF ACCEPTANCE AND INTEROCEPTIVE AWARENESS RELATED TO THE RISK OF PROLONGED GRIEF DISORDER AMONG UKRAINIAN MILITARY WIDOWS

Shyrai, Polina, Boiko, Dmytro

Poltava State Medical University, Poltava, UKRAINE

Background. Due to the ongoing Russian–Ukrainian war, a significant number of women have lost their military spouses, which increased their risk of developing prolonged grief disorder (PGD). Psychological flexibility and interoceptive awareness may play important roles in the experience of loss and the adaptation process.

Aim. The aim of our research was to investigate the relationships between psychological flexibility, various aspects of interoception, and the risk of developing PGD among widows of Ukrainian defenders.

Methods. We conducted a survey among widows of Ukrainian defenders using an online questionnaire. The study included 218 women whose husbands died while serving in the military during the Russian–Ukrainian war. The Traumatic Grief Inventory-Self Review Plus (TGI-SR+) was used to determine the level of complicated grief. The Multidimensional Assessment of Interoceptive Awareness – Version 2 (MAIA-2) was used to measure multiple dimensions of interoception (awareness of bodily sensations). The level of psychological flexibility was measured using the Acceptance and Action Questionnaire (AAQ-2).

Results. A strong direct correlation was established between the TGI scale score and the AAQ-2 scale score ($r = 0.612$, $p < 0.002$), as well as weak direct correlational relationships with the levels of not-distracting and not-worrying, and weak inverse correlational relationships with the levels of attention regulation, self-regulation, body sensitivity, and body trust. To identify possible factors in the development of prolonged grief disorder, we conducted a binary logistic regression analysis considering the AAQ-2 scale score and the indicators of not-distracting, not-worrying, at-

tention regulation, self-regulation, and trust according to the MAIA scale as predictors.

It was demonstrated that with an increase in the AAQ-2 scale score (OR = 1.18 (95% CI 1.11–1.25), p 0.001), which indicates a decrease in the level of psychological flexibility, the risk of developing prolonged grief disorder is statistically significantly higher. Additionally, with an increase in the level of self-regulation, the probability of developing prolonged grief disorder in widows of fallen defenders of Ukraine statistically significantly decreases (OR = 0.85 (95% CI 0.74–0.98), p = 0.026).

Conclusions. Thus, psychological flexibility and interoceptive self-regulation should be considered as target elements in working with the wives of military personnel who are participating in active combat operations, to prevent the development of PGD.

Acknowledgements. We thank the Veteran Development Center at Poltava State Medical University for their comprehensive support in organising and conducting this research.

PREVALENCE OF ALEXITHYMIA AMONG PATIENTS DIAGNOSED WITH ANXIETY DISORDERS AND DEPRESSION AT THE NATIONAL CENTRE OF MENTAL HEALTH OF LATVIA: A PILOT STUDY

Spriedēja, Anna Paula[1], Taube, Māris[1,2]

[1] Rīga Stradiņš University, Rīga, LATVIA; paula.spriedeja@gmail.com

[2] Clinic Veldre, National Mental Health Centre, Rīga, LATVIA

Background. Alexithymia is a neuropsychological trait characterised by difficulties in recognising, expressing, and understanding emotions. Although not classified as a mental health disorder itself, it is linked to various mental health conditions. Notably, alexithymia can exacerbate symptoms of depression and other psychiatric disorders. Previous research shows that the prevalence of alexithymia among general population is up to 13% but is even higher in those suffering from psychiatric disorders. Prevalence in patients with generalised anxiety disorder varies between 12.5% and 58% and may reach up to 26.9% in depressed adults. Alexithymia can significantly impact treatment efficacy for anxiety and depressive disorders.

Aim. The current study aimed to assess alexithymia prevalence among patients diagnosed with anxiety disorders and depression at the National Centre of Mental Health of Latvia, serving as a pilot investigation.

Methods. A quantitative cross-sectional study conducted in February 2025 at the National Centre of Mental Health of Latvia involved patients with anxiety disorders, depression, or both. Participants completed the internationally validated Toronto Alexithymia Scale (TAS-20) self-report questionnaire developed in 1994 by Taylor *et al.* and adapted into Latvian and Russian in 2005 by Gaide. Statistical analyses (Fisher's exact test) were performed using SPSS.

Results. Our analysis included 54 participants after excluding two due to differing diagnoses. The sample comprised predominantly women (88.9%, n = 48). The largest age group among respondents was 41–60 years old, comprising 40.7% (n = 22). The TAS-20 scores ranged from 32 to 91, with an average of 66.6 (SD = 10.9). Among participants, 48.2% had depression, 9.3% had anxiety disorders, and 42.5% experienced both conditions concurrently.

Notably, alexithymia was prevalent in 75.9% (n = 41) of all participants. Specifically, it affected 73.1% (n = 19) of those with depression, 80% (n = 4) with anxiety, and 78.3% (n = 18) of those diagnosed with both conditions based on TAS-20 scores 61 and above. However, no statistically significant associations were found between alexithymia prevalence and diagnosed anxiety or depression (p = 0.19).

Conclusion. Prevalence of alexithymia among patients diagnosed with anxiety disorders and depression is not statistically significant, despite a trend in the findings suggesting an increased prevalence. To evaluate the potential associations, a follow-up study involving a larger participant sample will be conducted.

Acknowledgements. The authors declare no conflict of interest. This research did not receive any external funding.

PRIMARY EMOTIONAL AFFECTIVE SYSTEMS IN OUT-PATIENT PSYCHOTHERAPY PATIENTS WITH DIFFERENT LEVELS AND STRUCTURES OF PERSONALITY ORGANISATION

Vībure, Jana, Zīle, Inta

University of Latvia, Rīga, LATVIA; jana.vibure@gmail.com

Background. A few studies have explored the relationship between primary emotional affective systems (PEAS) and personality functioning or structure. J. Panksepp's affective neuroscience theory describes seven affective systems shared by all mammals (SEEKING, CARE, PLAY, LUST, FEAR, RAGE, PANIC). From a psychoanalytic view, O. Kernberg distinguishes three levels of psychic functioning: neurotic, borderline, and psychotic. These levels reflect the dominant features of the human psyche: identity integrity, psychic defences, and reality testing.

Aim. The aim of the current study was to determine whether differences exist in the PEAS of patients depending on the level of personality functioning and structure.

Methods. The cross-sectional study included 31 out-patient psychotherapeutic patients. Participants completed two self-report questionnaires: IPO-57 (inventory of personality organisation) which assesses the level of personality functioning, and B-ANPS (brief affective neuroscience personality scale) which assesses six affective systems (SEEKING, CARE, PLAY, FEAR, RAGE, PANIC).

Results. All scales of B-ANPS and IPO-57 showed adequate internal consistency (Cronbach's alpha 0.714), except SEEKING (Cronbach's alpha – 0.583). Dominating PEAS were SEEKING (58.06%, n = 18), CARE (61.29%, n = 19) and FEAR (41.94%, n = 13). Statistically significant correlation was observed between IPO-57 score and B-ANPS score for negative effects (FEAR, RAGE, PANIC). The higher the IPO-57 score, the higher the score on FEAR (Spearman's r (r) = 0,671, $p < 0.001$), RAGE (r = 0.376, $p < 0.037$) and PANIC (r = 0.667, $p < 0.001$). A statistically significant relationship was observed between dominating PEAS and IPO-57 score. Predominance of only positive affective systems is characterised with lower IPO-57 score. The presence of dominating negative affective systems increased the IPO-57 score significantly ($p = 0.006$, ANOVA). No statistically significant differences were observed between different personality structures and PEAS.

Conclusion. SEEKING, CARE, and FEAR emerged as the most common PEAS in out-patient psychotherapy patients. Possible explanation: dominant SEEKING system may suggest a need for help, idealisation and activation of hope in psychotherapeutic setting; dominant CARE system suggests a split dependent part projected onto others to fulfil caregiving needs; dominant FEAR system suggests persecutory anxiety aligning with the paranoid-schizoid position and borderline personality organisation level according to O. Kernberg. A predominance of positive affects (CARE, SEEKING, or PLAY) was associated with lower IPO-57 score indicating a more neurotic personality organisation.

Acknowledgements. No conflicts of interest. No funding.

Content

Public Health and Epidemiology

Mental Health