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

Science Life

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

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.