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# ASSESSMENT OF THE LEVEL OF DISEASE OF THE DIGESTIVE SYSTEM AND MUSCULOSKELETAL SYSTEM IN CHILDREN AND ADOLESCENTS

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Abstract. The indicators of the dynamics of the morbidity level of the digestive system and musculoskeletal system in children aged 0-14 years, 15-17 years, 18 years and older are considered in the paper. Relevant data of official medical statistics of the Ministry of Health of Ukraine for 2013 and 2017 are analysed, the need for analysis of possible factors influencing the incidence of diseases of the digestive system and musculoskeletal system in children of different ages is indicated.

**Key words:** diseases of the digestive system, diseases of the musculoskeletal system, children, medical statistics.

Prolonged psycho-emotional stress, environmental pollution, hypothermia, disruption of normal nutrition - these factors accompanying a state of war can provoke a significant degradation of the health of the population, especially in such a vulnerable group as children.

Features of changes in the state of morbidity of the digestive organs and the musculoskeletal system of the child population, in particular, in the war and post-war period, will require additional analysis in the future.

Digestive and musculoskeletal disorders are among the many causes of ill health. Excessive static load on the spine, lack of natural dynamic load on the musculoskeletal system, general hypodynamics, malnutrition of modern children and youth - both in quality and frequency of eating, stress, hereditary predisposition - all these are factors in the likely development of pathological changes in the work of the digestive system and musculoskeletal system. In particular, according to medical statistics of the Ministry of Health, almost 50,000 children with chronic inflammatory diseases of the pyloric zone of the stomach and duodenum are registered in Ukraine for the first time every year. [1, p.54-55]. A significant percentage of diseases account for pathology of the pancreas and hepatobiliary area, in particular, pathology of the biliary tract (19.8%), pancreatic disease (11.5%), chronic hepatitis (5%) [2, p. 95-96].

The aim of the study was to compare the dynamics of diseases incidence of the population of Ukraine and Ternopil region in diseases of the digestive system and musculoskeletal system in 2013 and 2017, taking into account its age structure.

Analysis of statistical data [3, p.39; 4, p.59] shows that in Ukraine as of 2013, children aged 0-14 years were diagnosed with diseases of the digestive system (**DDS**) for 5213 cases per 100,000 population. In the age group 15-17, DDS was registered in 4859 cases. Significantly lower was the rate of children aged 18 and older - 2173 cases per 100,000 population. In 2017, there was a decrease in the level of DDS among children from 0 to 14 years - by 17.40% (4306 cases); however, between the ages of 15 and 17, the figure increases significantly by 22.56% (5,955 cases); among people aged 18 and older the figure decreases, but not significantly - by 2.61% (2137 cases per 100,000 population).

In the Ternopil region, the number of newly registered cases of

diseases of the digestive system (during 2013-2017) varied depending on age. In 2013, children aged 0-14 years were diagnosed with diseases of the digestive system for 4823 cases per 100,000 population. In the 15-17 years age group, DDS was registered in 5531 cases, significantly lower in older children - 2297 cases per 100,000 population. In 2017, there was a slight increase in the number of DDS - by 1.72% among children from 0 to 14 years (4906 cases), a significant increase was observed in the age group from 15 to 17 years - 7074 cases, which is 27.90% more than in 2013. However, among people aged 18 and older the incidence rate of 2.61% decreased - 2237 cases per 100,000 population.

One of the important indicators of the health of children and young people is the state of the musculoskeletal system. According to the results of data analysis of the State Statistics Service of Ukraine [3, p.40; 4, p.60] we found that there is a decrease in the incidence of musculoskeletal system in the population of Ukraine for the period 2013 - 2017. At the same time, the indicators among people of different ages differ slightly. In 2013 the number of first registered cases in children aged 0 to 14 years in Ukraine was 2593 per 100,000 population, while in 2017 this figure decreased to 2250 cases - by 13.23%. In children aged 15 to 17, the incidence rate in 2013 was 5,458 cases per 100 000 population, and in 2017 - decreased to 4755 cases - by 12.88%. In persons aged 18 and older, this figure decreased by 8.53%: in 2013 - 3,212 cases, in 2017 - 2938 cases per 100 000 population.

In the Ternopil region, the number of first registered cases of diseases of the musculoskeletal system per 100 000 population in 2013 amounted to 3,554 children aged 0-14 years, 4734 children aged 15-17 years, and persons aged 18 and over - 3133 cases. In 2017, the number of diseases of the musculoskeletal system in children aged 0–14 decreased to 2991 cases, which is 15.84% less than in 2013. However, in children, aged 15–17 there was a sharp increase in this indicator -6327 cases, which is 33.65% more than in 2013. Statistics in persons aged 18 and older also increased and amounted to 3328 cases per 100 000 population (increased at 6.22%).

Thus, in 2013 and 2017, the number of newly registered cases of

diseases of the digestive system tends to increase significantly in the age group of 15-17 years in both Ternopil region and Ukraine. The level of morbidity of the musculoskeletal system in Ukraine for this period decreases in all age groups, however, in the Ternopil area there was a significant increase in people aged 15-17. The obtained results are a substantiation of the need for additional analysis of possible factors influencing the incidence of diseases of the digestive system and musculoskeletal system in children of different ages.

### Literature:

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