Ukraine, like other countries of Europe, takes part in overcoming common health problems, in the search for effective mechanisms for the implementation of health-saving and health forming technologies. So, today school of Eastern countries such as Poland, the Czech Republic, Hungary, Ukraine and Russia participate in the project activities of the world health organization eThe European network of health promoting schools according to which all schools should become health promoting Schools and later the Schools of health. But due to the different socio-economic situation of the countries, the development of these schools has different priorities, so for better performance it is necessary to study the experience of European countries.

**Materials and methods:** analysis of scientific and theoretical and methodological literature.

**Results.** Comparative-historical and chronological analysis of the scientific literature on the investigated issue made it possible to define and characterize the stages of development European Network of Health Promoting Schools (ENHPS). On the basis of the studies and researches performed by O. Kont, M. McLyuen, I. Chistyakova, the main criteria for defining ENHPS stages development and formation has been determined: 1) innovative nature of the educational establishment Health promoting school activity; 2) existence of a number of educational establishments, united by the common idea; 3) availability of the organizational center that coordinates the activity of a number of educational establishments in health promoting schools innovative practice distribution; 4) involvement of all interested countries. The first stage (1974 – 1991) – an activity of protonetworks (pilot, experimental schools), ideas approbation. Their emergence has been foreordained by the following factors: pupils' physical and mental health poor state, life expectancy decline and population mortality increase, socio-economic conditions deterioration, searching for the ways of overcoming the discrepancy between the content of education and the needs of the society and a child, aimed at preserving and shaping health. Beginning of the stage coincides with the Lalonde Report promulgation in 1974, the Minister of Health and Welfare of Canada at that time. The first Schools of health promoting, the so-called experimental, pilot schools, were established in 1991 in Eastern Europe: in Hungary, in Czech and Slovak Republics and in Poland. The second stage (1992 – 2006) – ideas realization and ENHPS stabilization embodied the ideas of the I and II European conferences. As the leading features of this stage in school health promoting activity have been defined the following ones: turning the tasks of health schools promoting development into the priority of ENHPS educational policy (focusing on the tasks of educational process improvement; active involvement of parents and local communities, businesses, cultural and educational organizations and other stakeholders in co-operation with schools, providing ENHPS activity with social importance). The third stage (from 2007 – till present) – ideas evolution of health promoting schools. Striving for school education modernization and the changes of the society's economic and social spheres have led to continuous educational innovations. Beginning of the third stage was marked by conduction of the III European conference, where the main approaches and principles of network Schools for Health in Europe (SHE) activity have been defined. In general, all of our Health School models have proven their effectiveness and potential. It should be noted that all models deal with a health-preserving educational or school environment. This testifies to the awareness and understanding of educators about its impact on the health of children.

In Ukraine, at the beginning of work of the National Network of Schools for the Promotion of Health in Ukraine, V. Movchanyuk (the coordinator of the NNSPH from 1995 to 2001) developed a Health School model aimed at:

1) observance of the sanitary and hygienic conditions of the educational process, sanitary and educational work among pupils and their parents, teachers, sometimes with the addition of rehabilitation activities;
2) improvement of programs of health-oriented activities, their integration with other subjects, the introduction of the national program “Valeology”;
3) physical, mental and social development of students;
4) promotion of a healthy lifestyle [1, p. 59].

It should be mentioned that there is no holistic vision of the educational environment in this model as a health-preserving (separate components of the school environment are represented), which is connected with objective factors, namely the level of scientific pedagogical research at that time. We believe that today this model has fulfilled its function; therefore there is a need to develop and to introduce a new one taking into account the challenges of the modern world and the experience of European countries.

The analysis of the current state of the Health Schools in Ukraine has shown a variability of the Health School models. Each school is guided by its “author's model”, which focuses mainly on the formation of a health-preserving environment and a value attitude to their own health and health of others. For many educational institutions, the health-oriented activity of school is based on the creativity of the teacher, so schools choose different directions:

- introduction of health-preserving pedagogical technologies;
- valeologization of the educational process;
- pedagogy of health;
- physical education and strengthening of physical fitness of students;
- psychological and pedagogical support of children;
- preventive education;
- safety of pupils' life activities;
- health culture;
- spiritual and aesthetic improvement [2, p. 49].
DYNAMICS OF SALIVA ENZYMES IN PATIENTS AFTER USING OF BARRIER MEMBRANES

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Experts agree that the study of biomarkers, saliva enzymes in the near future will allow to conduct non-invasive diagnostics not only diseases of the oral cavity, but also a wide range of general somatic cases. To date, for the description of reparative bone regeneration is actual to determine the activity of enzymes in mixed saliva: lactate dehydrogenase, alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, acid phosphatase, superoxide dismutase. The increase or decrease in the reference values of the enzyme’s activity allows us to draw conclusions about the intensity of mineralization and inflammatory processes in the maxillofacial region. In addition to enzyme activity, it is possible to assess the level of mineral metabolism in oral fluid.

Aim of the study was to assess the informative value of indicators for reparative processes of the jaw bone tissue when using barrier membranes, based on the determination of saliva enzymes.

Materials and Methods. 40 patients with diagnoses: chronic apical periodontitis (15 people, 37.5%), radicular cysts of jaws (15 people, 37.5%), wisdom teeth retention (10 people, 25%) were included into the study. Patients were divided into 2 groups. In group I (control) surgical treatment without barrier membranes was performed. In group II the surgical protocol included the use of collagen barrier membranes to prevent the proliferation of soft tissue elements and optimize the process of bone tissue regeneration. Patients were randomly assigned to groups. All patients underwent surgery according to clinical protocols. Oral fluid intake was performed prior to surgery, on days 3 and 7 after surgical treatment. Before the manipulation, in the morning, on an empty stomach, before the local anesthesia, a sample of a 1.5 ml oral fluid was taken in the patients for biochemical tests.

Results. A comparative assessment of alkaline phosphatase activity of in the oral fluid in both patients’ groups showed advantages of using barrier membranes. Before the operation, the test value in the control group was 16.2 (14-19) U/L, in the II group 16.3 (13-20) U/L. On day 3, a significant difference in the activity level of the studied marker in group I (21.35 (17-33) U/L) was revealed in comparison with group II data with the use of barrier membranes (28.3 (19-33) U/L). In group II patients, the level of alkaline phosphatase increased by an average of 73.8%. Among the patients of the control group, the decrease was 31.8%. On the 7th day, the level of activity of alkaline phosphatase in the oral fluid in group I (20.8 (19-21) U/L) did not change significantly in comparison with group II (25.5 (18-32) U/L). A significant postoperative increasing the level of alkaline phosphatase in patients of group II indicates an active repair process. This is due to the reliable stabilization of the blood clot in the wound by the barrier membrane and the chemoattractant effect of collagen for the participants in the inflammatory process.

Prospects for further research. Thus, a promising direction in researching of bone repair processes (such as guided tissue regeneration) is the study of biochemical composition in oral fluid of patients in dynamics.

References:


Keywords: barrier membranes, guided tissue regeneration, alkaline phosphatase.