ABSTRACT

Actuality of theme. Studies on nervous and mental disorders and social adaptation to stress at the present level of scientific and technological progress is particularly important.

Nervous disorders - a variety of functional disorders of higher nervous activity, which can be acute or temporary phases of specific disorders that manifest primarily with symptoms of depression and tend to be protracted course.

The relevance of scientific research in this field is due, on the one hand, the lack of theoretical principles, which would allow to accurately detect the presence of mental and nervous state of the patient, and the other - an urgent need to create methods for more accurate assessment of the patient with the ability to adjust the size and direction of therapeutic effects.

Registration of brain electrical activity has long been used to study the neurophysiological bases of anxiety. Even the earliest studies of affective disorders by electroencephalography (EEG) conducted in 40-ies of XX century, found unexpectedly large number of anomalies in patients. In the "routine" visual analysis of EEG pathological features are found in 20-40% of depressed patients and with anxiety.

Modern methods of mathematical analysis and processing of EEG data significantly increases the diagnostic significance of detection method as correcting disorders.

One of the promising areas of modern psychiatry is the optimization and automation of diagnostic methods nervous disorders to improve the efficiency of healing process.

Therefore, to achieve the specified effect parameters,the purpose of the master's thesis. The aim is more informative process of diagnosis and treatment of nervous disorders by a method of quantitative and qualitative evaluation and correction of neuropsychiatric conditions.

Objectives of the study. To achieve this goal it is necessary to solve the following scientific and technological objectives:

- to analyze the characteristics and modern methods of diagnosing neuropsychiatric conditions;
- to establish and analyze experimental neuropsychiatric condition for the test results and evaluating the electrical activity of the brain;
- develop a method of automated research of nervous and mental disorders;
- develop a method of therapeutic correction Neuropsychiatric conditions;
- develop algorithmic structure of biomedical systems.

The object of study: the process of detecting nerve disorders.