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ANXIETY IN INDIVIDUALS WITH DIFFERENT LEVELS OF ALEXITHYMIA

The paper aims to investigate the levels of state and trait anxiety in individuals with different degrees of alexithymia. The study involved 208 university students aged 18-45 years. In order to assess the level of state and trait anxiety, State-Trait Anxiety Inventory by Charles Spielberger was used. Toronto Alexithymia Scale (TAS-20) (adapted by the scientists of St. Petersburg Psychoneurological Research Institute) was applied to study the degree of alexithymia. The received data were processed using statistical software Statistica v. 7.0 and SPSS v.13. Student's t-test was used to verify the reliability of the results obtained. On the basis of the correlation analysis of the parameters of alexithymia and anxiety, it was found that alexithymia correlates both with state and trait anxiety. However, the strength of relationships between alexithymia and state anxiety is less ($r = 0.27$) than that of trait anxiety ($r = 0.45$). The Student's t-test confirmed the significance of the correlation relationships between alexithymia and the level of state and trait anxiety ($P < 0.05$ and $P < 0.01$ respectively). According to the examination of the mean values of anxiety in people with different degrees of alexithymia, it can be observed that the average indicators, both of state and trait anxiety, have significant differences. Such a pattern is observed in both groups with state (46.8 and 50.5), and trait (38.4 and 49.2) anxiety, though concerning trait anxiety, these differences are more pronounced both in terms of mean values and according to Student's t-test.

Keywords: alexithymia, state anxiety, trait anxiety, psychosomatic anomalies, correlation analysis, Student's t-test.

Introduction

Psychosomatic disorders constitute a significant part of "civilization diseases" and during the last century they have been the subject of profound research within the framework of psychosomatic medicine. About one-fourth (according to some scientists, up to 50%) of people who seek medical attention because of physical complaints, mainly suffer from different kinds of mental disorders. It is not surprising that the problem of treatment and prevention of such disorders plays an important role in modern medicine (Eysenck, 2003). According to WHO experts, almost 50% of inpatient beds are occupied by patients with psychosomatic illnesses. According to the results of the research of domestic scientists, almost 70% of somatic patients have mental disorders of different kinds and degrees of severity (Napriienko, 2011).

The so-called "somatosensory amplification" is one of the most important signs of persons prone to psychosomatic disorders, which is a stable personality trait manifesting in focusing on somatic symptoms resulting in an increased subjective perception of physical sensations and risk that these feelings will be perceived as painful.

Summing up the ideas about psychosomatic relationships, the 6th WHO Seminar on Diagnosis, Nomenclature, and Classification of Mental Illness in Basel in 1970 identified psychophysiological support for emotions as

the main type of psychosomatic disorders. Emotional reactions have two parallel manifestations: psychological (sensory tone of pleasure or dissatisfaction) and vegetative, which performs a biologically important function of integral behavior energy supply (Gubachev, Stambrovskiy, 1981).

Scientists, especially representatives of psychoanalysis, suggest that alexithymia can be a predictor of psychosomatic disorders. Although the concept of alexithymia quickly gained recognition, its importance as a risk factor for the emergence of somatization symptoms has not been fully verified. The issue of the origin of the alexithymia traits remains open: is alexithymia a result of congenital defects, or the result of biochemical deficiency, and may arise due to developmental disorders? There are no answers to these questions yet.

In addition, scientists who rely on significant clinical experience have found that all patients with psychosomatic disorders have depressive disorders of the neurotic type, characterized by a predominantly depressed state, asthenic and anxiety manifestations (Antropov, 2003; Isaev, 2000).

Aim and Tasks

The paper aims to investigate the levels of state and trait anxiety in individuals with different degrees of alexithymia.

Research tasks are as follows:

1) evaluating the level of state and trait anxiety in the respondents;

2) examining the relationship between alexithymia and state and trait anxiety.

Research Methods

In order to study the degree of alexithymia, Toronto Alexithymia Scale (TAS-20) (adapted by the scientists of the St. Petersburg Psychoneurological Institute named after V.M. Bekhterev) was applied.

According to the scale, the theoretical distribution of results is possible in the range from 26 to 130 points. The “alexithymia” type of person has about 74 points or more, the “non-alexithymia” type gains 62 points or less. According to scientists from the St. Petersburg Psychoneurological Research Institute, the mean values of the parameter of alexithymia in several groups of subjects are as follows: a control group of healthy people – 59.3 ± 1.3 , patients with psychosomatic disorders – 72.09 ± 0.82 , group of patients with neuroses – 70.1 ± 1.3 (Karvasarskiy, 2002).

The scale consists of 26 questions. Each statement is evaluated according to a 5-point scale, from “totally disagree” to “fully agree”. The data are processed as follows:

1) the answer “totally disagree” is estimated in 1 point, “rather disagree” - 2 points, “neither” - 3, “rather agree” - 4, “totally agree” - 5. This system is valid for 2, 3, 4, 7, 8, 10, 14, 16, 17, 18, 19, 20, 22, 23, 25, 26 points on the scale,

2) items 1, 5, 6, 9, 11, 12, 13, 15, 21, 24 on the scale have a negative code.

The sum of scores according to all points is the final indicator of alexithymia.

In order to examine the level of state and trait anxiety, State-Trait Anxiety Inventory by Charles Spielberger was used. According to Spielberger’s conception, state anxiety is a reaction to the threatening danger of a real or imaginary nature, emotional state of objectless fear, characterized by an uncertain sense of threat, in contrast to fear, which represents a reaction to real danger. Trait anxiety is an individual psychological feature that manifests itself in an increased tendency to experience anxiety in various life situations, including those whose objective characteristics do not envisage it (Spielberger, Gorsuch, Lushene, 1970).

The concept of Spielberger was formed under the influence of psychoanalysis. He believes that trait anxiety appears as a result of relationships with parents during early stages of child development, as well as certain events that lead to fears in childhood.

The scale consists of two parts 20 tasks each. The first scale is designed to determine the way a respondent feels during the examination, that is, to assess the current state, and the tasks of the second scale are aimed at analyzing how the subject feels usually, that is, anxiety is diagnosed as a character trait.

Each scale has its own instruction; the survey takes about 5-8 minutes. Each issue is evaluated according to a

4-point scale. Verbal interpretation of the positions of the assessment scale in the first and second parts is different. The questionnaire provides an individual and group use types. In our case, the individual type was applied.

Spielberger’s scale was adapted to the Russian language by Yu. L. Khanin in 1978, who performed its standardization (Burlachuk, Morozov, 2001).

The research involved 208 university students aged 18-45 years of different faculties and years of study.

Data processing was carried out using statistical software Statistica v. 7.0, SPSS v.12 and Excel 2003.

Theoretical Research Results

The “alexithymia” term was introduced by Sifneos, who noticed that the patients suffering from classical psychosomatic disorders could not adequately perceive and verbalize their emotions. Alexithymia is a psychological characteristic manifesting itself in such cognitive affective features as difficulty in identifying and describing one’s own feelings, difficulty in finding differences between feelings and bodily sensations, decreasing the ability to symbolize, focusing on external events, rather than internal experiences (Sifneos, 1973).

Although the term itself was criticized because of the lack of relevance, but took a prominent place in the literature dedicated to psychosomatic illnesses. Trying to explain the syndrome of alexithymia and its role in the formation of psychosomatic disorders, scientists suggested a great number of theories and models. For example, the “negation” model implies global inhibitions of affects. If the negation is regarded as a psychological defense, then theoretically it can be assumed that the protective process is reversible with the subsequent disappearance of the syndrome of alexithymia, and hence the somatic symptoms. But unfortunately, the clinical practice of many physicians shows that in the majority of patients with psychosomatic disorders alexithymia manifestations are irreversible, despite the prolonged intensive and qualified psychotherapy. According to the “deficit” model, patients are not characterized by inhibition but the lack of functions, and hence the absence of the mental apparatus underlying them.

The inability of a person suffering from alexithymia to realize his/her emotions results in their displacement. The accumulation of bodily manifestations without abreaction leads to psychosomatic disorders. Thus, alexithymia at the psychological level becomes an analogue of somatization, which manifests itself at the physiological level. Therefore, modern psychomedical studies of alexithymia keep emphasizing its role in the development of many psychosomatic diseases (Korostyleva, Rotenberg, 1993).

Some scholars consider alexithymia as a peculiar form of a partial mental development delay, namely the inability of a child to express emotions verbally. Violations of the identification process with others, the inability to “put oneself in someone’s shoes”, understand other people’s experiences leads to a disruption of emotional contact with people. Therefore, in communicating with

patients suffering from alexithymia, such features as formality, heartlessness, hypernormativity are often noticed (Brighthams, Christian, and Rad, 1999).

Manifestations of alexithymia, as well as the tendency to conceal one's feelings, may also be an acquired sign. After all, such behavior is socially desirable in the society. Therefore, alexithymia to some extent can be considered a social disease. In general, stereotypes of human behavior in the society that contribute to the formation of alexithymia are combined with ideas about the standards of the so-called depressed society.

Some scientists believe that alexithymia is a result of inadequate interhemispheric connections. Their violation arises due to morphological changes in the brain corpus callosum. These defects were observed in clinical practice in patients with psychosomatic disorders using computer tomography. These broken connections do not affect the brain's vital functions, but are noticeable at the highest levels of its organization.

At the physiological level, alexithymia is based on hidden preclinical disorders involving violation of the functional asymmetry of the cerebral hemispheres and the disruption of the connections in each hemisphere, for example, a violation of the connection between the frontal and occipital lobes (sensory-associative), which leads to the so-called functional incoordination.

Some adherents of psychoanalytic ideas believe that numerous manifestations of psychosomatic disorders are a bodily reflection of chronic anxiety. They believe that anxiety is a basic sensation, the basis for the emergence of neuroses and an integral part of human existence (Nelson-Jones, 2002; Sandomirskyi, 2000; Horney, 1997). Anxiety in an adult person is transferred by the experiences from childhood and represents another manifestation of a regressive universal mechanism for the formation of psychosomatic disorders. According to these scientists, it is the mechanism of anxiety that comes to the fore, becoming the main reason for the emergence of psychosomatic disorders. That is, psychosomatic disorders are corporal manifestations of anxiety.

The use of neurophysiological fundamental knowledge and measurement techniques regarding the nature of anxiety gives grounds to state that specific phobias and acute stress disorders either appear as a result of a traumatic experience, and then deepen, or are formed gradually by conditioning. Such a restructuring of cortical functions can occur in any person under certain conditions. The reasons for the emergence of anxiety attacks were tried to be explained by several theories. According to one of them, the cause may be the activation in the

nucleus caeruleus of the medulla oblongata, which contains more than 50% of all noradrenergic neurons. Nucleus caeruleus electrostimulation causes the anxiety attack and a reaction of fear. In case of their damage, the reactions of anxiety and fear disappear. Another theory explains the emergence of anxiety states by excessive or impoverished gamma-aminobutyric acid inhibitor neurotransmitter. Thus, in case of cortical and subcortical activity increase, one can probably see the neurophysiological covariance of the symptoms of anxiety without making conclusions about the etiological significance of neurophysiological mechanisms (Perret, Baumann, 2002).

Study of familial clustering in patients with anxiety disorders is associated with some difficulties, since diagnostic concepts have been changing over time. If classical concepts are based on the diagnosis of anxiety reaction, today in clinical psychiatry, such concepts as panic disorder, phobic disorders, or generalized anxiety are used. The complex hierarchy of diagnoses in the area of anxiety disorders, in turn, leads to an excessive division of patients into separate study groups.

To date, there are no empirical data that would confirm the model of family and genetic transmission of anxiety disorders. But scientists suggest that the genetic component can be inherited and through the only gene. Research studies on genetic associations of anxiety disorders have not yet provided any information about causative genes (Perret, Baumann, 2002).

Empirical Research Results

Based on the correlation analysis of the parameters of alexithymia and anxiety, it became clear that alexithymia correlates with both state and trait anxiety. However, the strength of correlation relationships of alexithymia with state anxiety is less ($r = 0.27$) than that of trait anxiety ($r = 0.45$). When checking the reliability using Student's t-test, the relationship between alexithymia and the levels of state and trait anxiety was found to be significant ($P < 0.05$ and $P < 0.01$ respectively).

According to the examination of mean values of anxiety in people with different degrees of alexithymia, it can be observed that the average indicators of both state and trait anxiety, have significant differences (Figure 1). Such a pattern is observed in groups with both state (46.8 and 50.5) and trait (38.4 and 49.2) anxiety, though concerning trait anxiety, these differences are more pronounced both in terms of mean values, and Student's t-test.

The obtained data give grounds to make the assumption that the alexithymia to some extent is interconnected with the level of both state and trait anxiety.

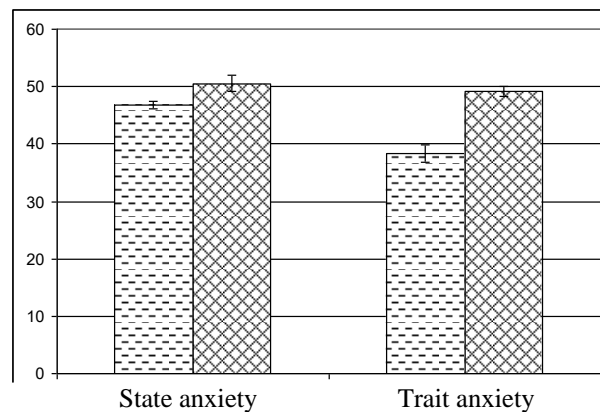


Figure 1. Indices of anxiety of individuals with different degrees of alexithymia

Conclusions

The intercorrelation analysis of data gives grounds for assuming that both state and trait anxiety are closely interrelated, which in our opinion is indicative of the common genesis of this personal property.

The obtained results of both correlation analysis and analysis of the differences in mean values in individuals

with different levels of alexithymia and anxiety give grounds for arguing that there is a certain relationship between anxiety and alexithymia. People with a high level of alexithymia have increased both state and trait anxiety. It remains unknown whether increased anxiety is the cause of alexithymia, or vice versa. This aspect is going to be investigated in our further research work.

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ТРИВОЖНІСТЬ У ОСІБ З РІЗНИМ СТУПЕНЕМ АЛЕКСИТИМІЇ

Мета статті – дослідити рівні реактивної та особистісної тривожності в осіб з різним ступенем алекситимії. Испитованими були студенти стаціонарної та заочної форми навчання віком 18-45 років, різних факультетів і курсів Черкаського національного університету, загальна кількість – 208 осіб. Для досягнення поставленої мети використовувалися такі методи: для дослідження рівня реактивної та особистісної тривоги і тривожності – методика Ч. Д. Спілбергера, для дослідження ступеня алекситимічного радикалу застосовувалась Торонтська алекситимічна шкала (адаптована науковцями Санкт-Петербурзького психоневрологічного інституту ім. В.М. Бехтерева). Обробка отриманих даних проводилась з використанням комп'ютерних програм Statistica v. 7.0 та SPSS v.13. Для перевірки достовірності отриманих результатів використовувався t-критерій Стьюдента. На основі кореляційного аналізу показників алекситимії і тривожності з'ясувалось, що алекситимія корелює як з реактивною, так і з особистісною тривожністю. Щоправда, сила зв'язків алекситимії з реактивною тривожністю є меншою ($r = 0,27$), ніж з особистісною тривожністю ($r = 0,45$). При перевірці достовірності за t-критерієм Стьюдента зв'язки між алекситимією і рівнем тривоги і тривожності виявились достовірними ($P < 0,05$ і $P < 0,01$ відповідно). За результатами експериментальних досліджень середніх величин тривожності у людей з різним ступенем алекситимічного радикалу можна спостерігати, що середні показники як тривоги, так і тривожності мають достовірні відмінності. Така закономірність спостерігається в групах як з реактивною (46,8 і 50,5), так і з особистісною (38,4 і 49,2) тривожністю, щоправда за показником особистісної тривожності ці відмінності сильніше виражені як за середніми величинами, так і за t-критерієм Стьюдента.

Ключові слова: алекситимія, реактивна тривожність, особистісна тривожність, психосоматичні неадаптації, кореляційний аналіз, t-критерій Стьюдента.

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