Research Article

The evaluation of psycho-emotional state in junior students of medical university

Tetiana Pavliuk*, Mukola Rozhko, Oksana Panchak

Abstract

Currently, psychosocial factors, stress and mental exhaustion are considered by WHO experts and the International Labour Organization as an important new factor affecting the health, working capacity, training and career. Young generation, especially students, who are an industrial and intellectual potential of the country can be attributed to the risk group because of the extremely high burden of adaptation. The intensity and tension of modern life at a psychological level preceding the occurrence of negative emotional experiences and stress reactions that, accumulating, cause the formation of depressions. The aim of the study was to examine the level of psycho-emotional stress in the junior students of medical university. The observations of the medical students of the second year of study were performed. To determine the psycho-emotional stress we have used adaptive variant of H. Ayzenko method that include an anxiety, frustration, aggressiveness and rigidity, through questionnaires. According to a survey results of the state of psycho-emotional state low levels of stress resistance were found in students in learning activities, indicating that students are exposed to the negative impact of the environment. It should also be noted that the level of emotional condition of students depends on the personal experience of stressful situations that arise in students’ lives.

Keywords

psycho-emotional stress; stress; medical students

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Problem statement and analysis of the recent research

Recently, psychosocial factors, stress and mental exhaustion are considered by experts of WHO and the International Labour Organization (ILO) as a new important factor that affects on health and working capacity, training and working career [3].

Activity, vitality, observation, adaptability to the conditions of training activities in higher education, low anxiety, emotional stability, ability to perceive and analyze information are the signs of students’ mental health [12].

Young generation of our country, especially students, that is an industrial and intellectual potential of our country, might be attributed to the group of risk because of the extremely high adaptational burden [3].

The intensity and tension of modern life at a psychological level precedes the occurrence of negative emotional experiences and stress reactions which, accumulating, cause the formation of severe and prolonged depressions. Unfortunately, stress has become a part of everyday life for many people. Sometimes it is not even noticed, while the long-term impact of negative emotions can cause a lot of stress etiology diseases, the so-called “stress diseases”. Young people, who begin student’s life, are simultaneously affected by several stress factors: the change in the reference and micro-social environment in educational institution, often change of living conditions, change of the traditional way of life, including the order of classes and control events at the university (compared to school study) and others. That is why students often need help in adapting to new conditions of life.

The need to research students’ mental health is determined by the presence of such factors that affect the state of their mental health including: exams, periods of social adaptation, the necessity of personal self-determination in the future professional environment and so on. Emotional states, which are experienced during this period, and their consequences constitute a serious threat to students’ psychological health. In high education institution terms mental health is very important factor that determines students’ educational activities success, promotes their personal development and conflict-free communication. [12]

Before making analysis of stress problem in junior students, the definition of “stress” should be clarified. According to the psychological dictionary stress is a non-specific reaction of the organism on unexpected and tense situation Almost every person (and also students) undergo strong stress situations in his life, which leave deep traumatic and sometimes incurable wounds in the soul. Especially young generation experience it in an acute way. Troubles in educational establishment, disputes, conflicts with age mates, problems in personal life,
family conflicts, lack of love, parental and teacher cruelty or indifference or just inconsistency in punishment and reward system, financial difficulties – this is not an exhaustive list of conditions that injure the young people psychics. If they are emotionally vulnerable, unprotected students, they begin to fall behind in school, constantly stay in fear and anxiety condition, hopelessness and apathy state, their total activity is reduced, that leads to poor health.

This is physiological response that mobilizes body reserves and prepares it for physical activity such as resistance, struggle, escape. Stress classification indicates that stress is the result of stressors, which differ in content, power, action time. In addition, the same stressors might be caused by different reactions in different people, especially young people [1].

From a psychological point of view stress condition include specific form of human reflect on extreme situations and behaviors as a response to this display. Anxiety is considered as a form of stress. We classified stress: eustress (positive stress, combined with the desired effect and mobilizes the body) and distress (negative stress with undesirable harmful effect). Cognitive processes and processes of self-awareness, understanding of reality, memory are activated in eustress. Distress that arises in working or training (for students) situation has a tendency to spread. Negative neuro-psychological and physiological effects that accumulate are difficult to compensate in leisure hours, rapid compensation during training or employment are required. At the present time the features of society, including information overload, is the main cause of chronic stress. Some scientists note that stress has acquired epidemic nature. [2]

A lot of people have chronic emotional stress as a result of missing rational rest. High level of emotional stress associated with overload information, accelerated rate of life, adverse conditions of study or work, may contribute to increase the inflammatory and degenerative diseases of periodontal tissues. In recent years clinical studies confirm the high sensitivity of the periodontal tissues to stress. As research showed various factors have an influence on the occurrence of periodontal disease tissue showed that stress is a determining factor in the development of periodontal pathology. [8]

It is shown that long-term impact of immobilized stress on human being is accompanied by redistribution of blood, changes in microcirculation and destructive lesions of microvessels [11], increased free radical processes, a decrease in oxygen consumption [4], a violation of energy metabolism [6] and the development of degeneration of bone [5, 9, 10]. However, the question of stress-induced transport disorders and utilization of oxygen in soft and hard periodontal tissues is hardly clarified [7].

By definition of B. Ananyev the student’s age, is a sensitive period for the development of major human potential. Higher education causes a huge impact on the human psychics, the development of the individual, forms the thinking way that characterizes professional orientation of the individual. Theoretical and practical training condition is a kind of training ground for adequate responses to various social and physical environment incentives. A fairly high level of general intellectual development, erudition, breadth of interest level of a select number of logical operations are needed for successful learning in high school. At some reduction of this level the compensation is possible because of motivation efficiency increasing, perseverance, diligence and care in educational activities. The success of the people is affected by anxiety. As established, anxiety promotes activities that are simple for a person and prevent – in the complex ones, while the initial level of human anxiety is essential [1].

**Objective**

To examine the level of psycho-emotional stress in the junior students of medical university.

### 1. Materials and methods

For self-study emotional state of junior medical students, we have attracted 137 students (37 boys, 100 girls) who are the 2nd year students of medical university. The sample had no significant differences by gender and age composition, residence. We have used H. Ayzenko questionnaire that include an anxiety, frustration, aggressiveness and rigidity. Questionnaire contains 40 questions, 10 for each group of mental states. If this condition occurs frequently, it’s rated 2 points; if it happens, but rarely – 1 point, if not fit – 0 point. Interpretation of the results is as follows: calculated scores for questions from 1 to 10, corresponding indicator of anxiety, from 11 to 20 – frustration, from 21 to 30 – aggressiveness and from 31 to 40 – rigidity. The number of points for each mental state is assessed in the Table 1.

The results of research were statistically analyzed with the help of statistical package «Stat Soft 6.0», classical methods of variation statistic. The differences between studied parameters were evaluated by Student’s test.

### 2. Results and discussion

As a result of psychological test that was conducted in second year students of medical university, we have obtained the relevant data (Table 2) for each parameter of mental state (anxiety, frustration, aggression, rigidity)

In our research we have found low level of anxiety in 46% of students that an average is 5.32 ± 0.18. The average rate of anxiety we have observed in 49.9% of surveyed students that an average is 9.76 ± 0.23 points. If we estimated the number of students who received the result of high anxiety, it is quite low – it is 4.4% and an average is 15.67 ± 0.42 points. Analyzing indicator of anxiety, it should be noted that most of students observed average level of anxiety that is acceptable and is characterized by general circumstances and situations addiction.

Analyzing the index of frustration we have received the following data: 66.4% of students had low level of frustration, and an average it is 5.03 ± 0.18 points; in 30.7% found an average level of frustration, and an average it is 10.07 ±

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**Table 1.**

<table>
<thead>
<tr>
<th>Mental State</th>
<th>Number of Points</th>
<th>Average ± Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td>5.32 ± 0.18</td>
</tr>
<tr>
<td>Frustration</td>
<td></td>
<td>9.76 ± 0.23</td>
</tr>
<tr>
<td>Aggressiveness</td>
<td></td>
<td>15.67 ± 0.42</td>
</tr>
<tr>
<td>Rigidity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Table 1. The interpretation of psycho-emotional conditions

<table>
<thead>
<tr>
<th>Points</th>
<th>Anxiety</th>
<th>Frustration</th>
<th>Aggressiveness</th>
<th>Rigidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 7</td>
<td>Restless</td>
<td>High self-esteem, resistant to failures, not afraid of difficulties</td>
<td>Stable, restrained</td>
<td>Rigidity is absent, easily goes over</td>
</tr>
<tr>
<td>8 - 14</td>
<td>Anxiety is average and acceptable</td>
<td>Intermediate level, frustration occurs</td>
<td>Average</td>
<td>Average</td>
</tr>
<tr>
<td>15 - 20</td>
<td>Very disturbing</td>
<td>Low self-esteem, you avoid difficulties, fear of failure</td>
<td>Aggressive, unrestrained. There are difficulties in working with people</td>
<td>High rigidity, it is contraindicated to change a job and changes in family</td>
</tr>
</tbody>
</table>

Table 2. Indicators of mental states in the 2nd year students

<table>
<thead>
<tr>
<th>Level of indicator</th>
<th>Anxiety</th>
<th>Frustration</th>
<th>Aggressiveness</th>
<th>Rigidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Average score</td>
<td>%</td>
<td>Average score</td>
<td>%</td>
</tr>
<tr>
<td>Low (0-7)</td>
<td>46</td>
<td>5.32</td>
<td>66.4</td>
<td>5.03</td>
</tr>
<tr>
<td>Average (8-14)</td>
<td>49.6</td>
<td>9.76</td>
<td>30.7</td>
<td>10.07</td>
</tr>
<tr>
<td>High (15-20)</td>
<td>4.4</td>
<td>15.67</td>
<td>2.9</td>
<td>15.5</td>
</tr>
</tbody>
</table>

0.28 points; 2.9% – the indicator of frustration is high and an average it is 15.5 ± 0.5 points. Thus, from the obtained results, we can see that most of students have low frustration level that indicates that students have high self-esteem, and are resistant to failures.

As we can see from a table 2 – 29.2% of students are not aggressive, and an average it is 4.93 ± 0.27 points. The average level of aggressiveness is observed in 60.6% of students (10.36 ± 0.19 points). The high rate of aggression is observed in 10.2% of students and an average it is 16.0 ± 0.29 points. As it can be seen from Table 2, the 2nd year students have average level of aggressiveness, characterized by mood changing and restraining of their aggression.

Analyzing rigidity indicators we might see that 32.1% of students have low rigidity and an average it is 5.82 ± 0.21 points. If we estimate the average level of rigidity, it is present in 60.6% of students an average it is 10.42 ± 0.22 points. The high level of rigidity is noted in 7.3% of students and an average it is 15.5 ± 0.17 points. Consequently, most students have an average level of rigidity that shows the influence of this persons’ mood and their desires onto the human behavioral activity.

Conclusions

According to the results of psycho-emotional state examination (method of H.Ayzenko), we have found fairly low levels of students stress-resistance in vocational training activities. The results of anxiety, aggressiveness and rigidity are at the average level, that indicates that students are not able to resist the negative influence of the environment, inadequate respond on the conflict and stress situations.

Thus, the level of psycho-emotional state depends on personal experience of stressful situations that arise in students’ life and during studying.

References


Perspectives for further research

We plan to study further the level of psycho-emotional stress in students who graduate from university as well as the relationship with diseases of the oral cavity.


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