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Olga A. Vovchenko*

Mykola Yarmachenko Institute of Special Pedagogy and Psychology
of the National Academy of Pedagogical Sciences of Ukraine
04060, 9 M. Berlinskyi Str., Kyiv, Ukraine

Emotional and Behavioural Reactions of High School Students with Special Educational Needs (Hearing Impairments) under Stress

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Abstract. The relevance of the study is conditioned by the constant stress in which Ukrainians live today. The paper also considers this issue from the standpoint of the period of collective stress, which depends not only on the individual's own tendency to anxiety or neurotic reactions, but also on the social environment. The study is also relevant because it reveals the main ways of helping a psychologist in such situations: the process of support, the development of positive thinking, which will be combined and directed to constructive reflection. The problem of collective or personal stress is the consequences that lead to panic attacks, emotional burnout, neuroticism, and other neurological complications, in particular, in young people (high school age, adolescence), when the psyche undergoes constant changes, is prone to suggestion and does not yet have clear guidelines for life movement. In such conditions of stress, two ways of personal transformation are possible – destructive and constructive. Therefore, the purpose of the study is a praxeological investigation of the emotional and behavioural reactions of high school students with special educational needs, identifying the state of anxiety and stress levels that affect their regulative sphere in general. The following theoretical approaches were used: deductive (axiomatic, hypothetical and deductive) – for a systematic description of the phenomenon under study; inductive (to establish patterns, systematisation, typology based on the results of empirical research), and special empirical: psychological diagnostics of stress level “Test to determine the level of stress” (V. Shcherbatykh), “Methods of perceptual assessment of the type of stress resistance” (N. Fetiskin), “Methods for detecting personal and situational anxiety” (C. Spielberg); methods mathematical statistics. As a result of the survey, a relatively similar but rather high level of stress and anxiety was found in high school students with special educational needs. In addition, it is determined that the prevailing beliefs and behavioural strategies that do not allow adapting to new living conditions are dominated by negative information selection and globalisation of the smallest problems. The main manifestations of stress are identified, such as: depressive states, post-traumatic stress disorders, neurotic states, fears, and many other post-stress reactions of the psyche and body. The indicators of anxiety, stress tolerance, and general stress level showed high correlations, which indicates a low level of resistance of the growing personality in conditions of uncertainty, changes, personal and social crises. It was found out that now the main task of psychologists is correctional and explanatory, therapeutic, correctional work with children with special educational needs, especially during age-related crises

Keywords: children with special educational needs, hearing, high school age, stress tolerance, stressors, stress resistance, distressors, anxiety

*Corresponding author

INTRODUCTION

In modern political, economic, socio-cultural changes and constant dynamic situations of rearrangement (change of leadership and leading areas of activity, in particular regarding educational processes, social instability, lack of finances, rising prices, military operations), the importance of psychological understanding, determining the possibilities of effective management of one's behaviour and emotional states increases in society. The concepts of stress, stress tolerance, and stress resistance are increasingly discussed in the psychological literature, as they largely determine whether a person will experience distress in response to a particular event.

Stress tolerance of a person is the ability to overcome difficulties, regulate emotions and behaviour, understand the appropriate moods of others, showing self-control and tact in appropriate situations [1]. Stress tolerance is determined by a set of personal qualities that allow a person to endure significant intellectual, volitional, and emotional loads due to age-related characteristics of activity, without special harmful consequences for life, others, and their own health.

At the same time, there are multidirectional influences in society, many of which have a stressful effect on a person, in particular, on a person with special educational needs, especially during the period of study in schools and other educational institutions. The causes of stress, for example, in high school students studying in special educational institutions, can be high stress from a large amount of information, the requirements of certain achievements on the part of parents, and the pressure from the family or teachers. Close people constantly demand high grades, specific behaviour, appropriate emotions, participation in social and academic life, and leadership among peers from a teenager, which can create an excessive burden.

The response to stress is different for every teenager. Some people become depressed and withdrawn, wary of their peers, do not communicate with students, may not have contact with people at all, and become timid. Some show stress in the form of aggressive outbursts, irritability, or inability to control their behaviour [2].

Many papers have focused on the study and distribution of stress into physiological and mental ones. Physiological stress is a condition that is directly associated with a real stimulus, catalyst, or trigger. Psychological stress differs from physiological stress in that for a person, in particular, with special educational needs, it is as if "illusory", fictional, far-fetched, created by neurotic characteristics of a child/adult, their temperament, ability to react to certain events and perceive them (as a big evil, or as a petty problem). Psychological stress is inextricably linked with the experience of a person, previous injuries, and images in life. There is a classification of psychological stress into emotional and informational. Informational, mainly related to the load and overload of the educational and cognitive field of a child/adult. For example, when a student is unable to complete a specific task, set a task, make a quick decision, or take responsibility for assigned tasks. This type of stress

is characterised by memory loss, decreased concentration, and increased distraction [3].

Emotional stress occurs in situations of threat, danger, resentment, threats, bullying in the school environment, or among the immediate environment of a person with special educational needs, in particular, with hearing impairments, etc. If an older student remains face-to-face with their experiences and emotional problems for a long time, there is an increase in tension, anxiety, and sleep worsens. For example, tidy students can become, on the contrary, unkempt, and sociable students – withdrawn, introverted. During emotional stress, depression, helplessness, and emotional outbursts may occur. This type of stress is dangerous because its manifestations may include thoughts and phrases that contain a threat of suicide [4; 5].

LITERATURE REVIEW

Stress is a very serious problem, almost throughout the entire life of the individual, but it worsens precisely in adolescence, (or during age-related crises), in high school. Therefore, it is scientifically and practically justified that it is necessary to form stress resistance starting at preschool age, so that in later life it is easier to adapt to external and internal factors that provoke stress. The review of psychological and pedagogical literature determines the categorical vision of the problem by different researchers, from the standpoint of different approaches. Thus, it was found that in the encyclopaedic dictionary stress is defined as: "a set of protective physiological reactions that occur in the body of animals and humans in response to the influence of various adverse factors" [6; 7].

Despite the fact that many studies are devoted to the problem of stress, there are relatively few publications investigating the nature of stress tolerance, especially with regard to the emotional and behavioural aspect. Modern researchers pay special attention to identifying the determinants of resistance to psychological stress, its manifestations in educational activities, and in the professional development of the individual [8; 9].

At the same time, practical psychologists and psychotherapists are particularly interested in the phenomenon of stress and stress tolerance of individuals with special educational needs, in particular, those with hearing impairments in high school age due to their connection with emotional manifestations, behavioural characteristics and reactions and, accordingly, insufficient knowledge.

The appearance of disharmonious and deforming components that negatively affect the quality of life, such as anxiety (situational and personal), emotional negative manifestations, neurotic states, behavioural disorders, and much more actualises consideration of the resistance of older schoolchildren with hearing impairments to stress, which does not contribute to the development of stress tolerance (as noted by practitioners, psychologists, and social workers in an institution with children of the specified age with hearing impairments).

In the modern Ukrainian academic literature, the problem of stress resistance was considered by A. Baranovska [10], D. Doroshenko [8], N. Smik [3], O. Lozenko [13] et al.

Thus, according to D. Doroshenko [8], the stability and maturity of the individual is closely related and considered together with the skills of a senior student with special needs to focus on certain goals, with the nature of the time perspective, the organisation of their activities. The problem of the influence of the personal factor in overcoming stress is investigated by A. Makgrat [11], P. Thoit [12], T. Bates [14] & F. Spinath [14], A. Slyzkyi [6] et al.

Researchers have focused special interest on the problem of the behaviour of individuals with special educational needs (in difficult life circumstances that arise in the process of coping-life activity, which is called coping strategies. The main research is also reflected in the papers of foreign researchers R. Lazarus [5], St. Korek [2], A. Makgrat [11], M. Molit [12], P. Thoit [12].

Thus, A. Makgrat defines stress as a significant imbalance between requirements and the ability to react in conditions where failure to comply with the requirement leads to important consequences of loss of personal integrity, impaired mental activity, psychosomatic or neurological reactions of the individual [11].

Stress causes a number of reactions in the body of a child and an adult. These are biochemical changes, physiological, psychological, etc. This is conditioned by the historical and genetic features of the human body, which thus protected itself and activated its defence mechanisms as quickly as possible, helped a person fight the enemy, the elements, etc. The term "stress" reflects three main aspects of stress, which are the focus of modern research in special psychology:

- stress as a situation or its inherent factors that require additional mobilisation and changes in the behaviour of a person with special needs;
- stress as a condition that activates a number of specific physiological and psychological manifestations;
- stress as delayed negative consequences of acute experiences that violate the legal capacity and health of a person with special needs.

In order to be correct in terms of the term "stress", the study will consider the definition of stress as the body's reaction to external factors. To describe the negative effects of stress, the definition or scientific category "distress" will be used. In turn, as noted by D. Zillmann, external factors that cause stress are called "stressors" [15].

Researchers and practical psychologists suggest that stress occurs only when negative events occur: the death of a loved one, divorce, job loss, conflicts, etc. This is a big mistake. Any changes, both positive and negative, are the mechanism that triggers the stress response [15]. In psychology, such changes and factors that affect a person with special needs, in particular, with hearing impairments, are called a source of stress, an irritant, or as already noted – a stressor [3].

When a stressor appears, a critical situation is created, that is, the student cannot live as before, but still does not

know how to do otherwise. This is called maladjustment. Thus, in the life of a student, stress appears – an attempt by the body to adapt in a certain way to new conditions. Changes can be either negative or positive: a wedding, the birth of a child, a promotion, etc.

The development of stress and adaptation to it goes through several stages: the stage of mobilisation (anxiety), resistance (stability), exhaustion. The stage of mobilisation or anxiety, which is also called an emergency stage [7]. During this period, all protective functions of the body and resources of the individual with special needs are mobilised [10]. The stage of resistance and stability is the stage of counteraction. If the causes of stress at the first stage could not be eliminated, the student's body is rebuilt and personal resources are spent on fighting the stressor, and the body's functions begin to work for exhaustion. The stage of exhaustion is similar to numbness, deprivation of strength and the ability to move. A person is not able to adequately assess the situation and make certain effective decisions, acting automatically [10].

Going through each stage of stress depends on:

- the level of resistance of the body of a person with hearing impairments;
- intensity and duration of stressor exposure;
- personal significance of the stress factor for a student with hearing impairments;
- adaptive flexibility [8].

The tendency to stress and the peculiarities of its course depends on the mental health of the individual at a certain point in time (when an event occurs that is a stressor for the individual). Conversely, a person's mental health is closely related to the stress response. Investigating the category of "stress", "stress tolerance" O. Lozenko [13] identified five categories of possible consequences of stress:

- 1) subjective – anxiety, aggression, depression, fatigue, mood deterioration, low self-esteem;
- 2) behavioural – tendency to accidents, alcoholism, substance abuse, emotional outbursts, excessive food consumption, smoking, impulsive behaviour;
- 3) cognitive – impaired attention functions, decreased mental activity;
- 4) physiological – increase in blood glucose levels, increase in blood pressure, dilated pupils, a variable feeling of heat and cold;
- 5) organisational – absenteeism, low productivity, job dissatisfaction, decreased organisational efficiency and loyalty.

Therefore, providing parents with the safety of the child's mental state is the most important condition for the prevention of stress and depressive disorders in people with special needs, in particular, those with hearing impairments in high school age.

In scientific theory, there are attempts to describe the effect of anxiety levels on stress resistance in older schoolchildren. Thus, according to the theory of St. Korek [2], children of high school age with an adequate level of emotional stability, confident in themselves and their abilities, capable of controlling their behaviour and emotions, with a

low level of situational and personal anxiety calmly perceive reality, stress-resistant, easily solve complex life problems, without conflict.

High school students who are unable to control impulsive drives and emotions are influenced by feelings and circumstances that depend on mood. According to D. Doroshenko [8], they have low discipline, a high level of anxiety, and a low level of stress tolerance.

There are differences in the degree of expression of a number of personal properties between unstable and stress-resistant high school students [3]. Thus, emotionally stable high school students are more distinguished by their orientation to contacts with people, to the outside world. They are also more determined, active, and realistic [2]. Their emotionally unstable classmates are more prone to anxiety, more withdrawn, irritable, anxious, prone to doubt, focused on failure, prone to unbalance, excitability, or passivity [8].

Considering the scientific category of stress tolerance, then, for example, A. Slyzkyi [6] characterises stress tolerance as a special interaction of all components of mental activity, in particular emotional ones. The researcher emphasises that stress tolerance "... can be more specifically defined as a personality trait that ensures a harmonious relationship between all components of mental activity in an emotionogenic situation and thereby contributes to the successful performance of activities."

O. Lozenko [13] defines stress tolerance as a special interaction of all components of mental activity, including emotional ones. In the study, stress tolerance is considered as a complex property of a special needs student, which is characterised by the necessary degree of adaptation to the influence of extreme external and internal factors in the process of life and the process of growing up (living an age-related personal crisis). Stressful effects on older students with hearing impairments can be carried out at home and on the educational territory.

For example, an irrational way of life, lack of freedom of movement, insufficient exposure to fresh air, poor, irrational nutrition, improper organisation of sleep and rest, authoritarianism of communication with adults or peers, bullying, unjustified restriction of freedom of schoolchildren, intellectual and physical activity, even bad weather conditions or geomagnetic storms, etc. [10].

But, despite the definitions of various authors, the central link of stress is the very non-specific reaction of the body, which, regardless of the cause of stress, has its own patterns of development. Important in this case is such an ability of the student's personality as "stress tolerance". Because stress tolerance is the ability of a person to overcome extreme situations based on their own self-esteem, self-attitude, and self-regulation. Stress tolerance is a specific type of resource for a person (child/adult) that allows them to respond to a stressor, providing a positive response to a stable type of behaviour, emotional responses, etc.

The purpose of the study is an identification and experimental verification of emotional and behavioural reactions of high school students with special educational needs (in particular, people with hearing impairments) under

stress. The goal was to achieve a step-by-step solution of the following tasks:

- determine the conditions and possible causes of stress for people of high school age with special educational needs (in particular, those with hearing impairments);
- state the stress level of people of this age category with hearing impairments;
- outline the condition and main stress factors in high school students with hearing impairments;
- identify the leading conditions that affect stress tolerance and compliance of the state of emotional and behavioural reactions of people of high school age with hearing impairments with the level of stress that was established (based on the results of testing, conversations, and observation).

MATERIALS AND METHODS

General scientific and specific research methods (observation, conversation) and special empirical methods were used to solve these problems and ensure the reliability of the obtained conclusions and results. Among the main empirical methods of psychological diagnostics, such methods were used that determine the stress resistance of students, the level of stress at the time of diagnosis, the state of the emotional and behavioural sphere of schoolchildren, depending on life difficulties, indicators of tension or stress in people with hearing impairments of the specified age. The diagnostic procedure was started in early 2021 (*Due to the social situation in the country, its continuation is difficult, and accordingly, corrective measures were also taken. Since it was planned to conduct a comparative analysis with similar methods of older otologically normal schoolchildren.*)

Observation and conversation allowed verifying the results obtained through testing. Since, despite the validity of the methods used, older students often have no desire to pass any tests, the desire to answer at random in order to quickly go about their business (go home, communicate with peers, etc.). In addition, conversations were conducted with educational staff (teachers, social workers), who could also provide additional information, confirm, or focus on certain details of the behaviour of certain students, which in the future (not at the time of diagnosis, after receiving "clean" data) helped during psychological sessions, correctional work and psychological therapy.

Psychological survey of the stress level was diagnosed by the "Test to determine the level of stress" (V. Shcherbatykh) [16], "Methods of perceptual assessment of the type of stress resistance" (N. Fetiskin) [17], "Methods for detecting personal and situational anxiety" (C. Spielberg) [18]. The results were processed and confirmed by mathematical and statistical analysis.

The surveys were conducted on the premises of the Communal Institution of the Lviv Regional Council "Podkamynsk Special School of I-III stages with Advanced Vocational Training"; "Zhytomyr Special School No. 2" of Zhytomyr Regional Council; Special Boarding School of I-III stages in Kyiv; Terebovlia Rehabilitation Training Centre; and Compensatory Preschool Educational Institution No. 582 in Kyiv.

The study involved older students aged 15-17 years (grades 9, 10, 11). The sample consisted of 167 people (87 girls and 80 boys). By age criterion: at the age of 15 years – 61 people, 16 years – 57 people, 17 years – 49 people.

RESULTS AND DISCUSSION

It is especially important for older students to develop a natural protective response that ensures that stress does not have a detrimental effect on health and well-being. It is possible to develop a defence mechanism, because stress resistance is not an innate quality. The tips below will help develop this essential quality for children with hearing impairments in high school age: first, to define values and priorities. The basis for developing stability is the correct definition and clear differentiation of things that are important for the student and unimportant. Most of the experiences of schoolchildren (and therefore teenagers) are often associated with certain small, insignificant events, things, situations that they hyperbolise, due to the peculiarities of their age. Thus, if a high school student has a clear distinction between what is truly precious, important, valuable, and important in their life, most of the stress can be avoided.

Second, it is the ability to let go of negative emotions. Emotions of the personality of an older student, especially with special needs, are an area that is quite difficult to self-regulate and self-control. But such control should be taught to such a child from childhood. It is worth remembering that negative ones most often occur without the permission of the individual, so a teenager (a high school student) cannot always prevent their appearance, but we can always help them. If parents are not able to teach their child the regulation of emotional states themselves, they can contact specialists of a special educational level, in particular, psychologists or psychotherapists. Older students, from primary school age, even at the preschool stage, need to be taught a culture of emotions so that they do not accumulate negative, destructive emotions.

Third, the ability to analyse and filter information. Logical thinking classes are very useful for this purpose for high school students. Logic is a tool that allows quickly finding an explanation of what is happening, and realising what impact it would have on future life and events. If a person is taught to analyse information and think about the logical development of events, then it is possible not only to develop resistance to stress but also to develop intelligence. Logic is developed by games, classes, reflections, or even ordinary computer strategies, which are so popular today among high school students.

Fourth, it is a personal example that the most effective way to develop stress tolerance in an older student with hearing impairments and in general a person with special educational needs, it is important that the child sees how their parents cope with stimuli, how they manage their emotions. Children, even older schoolchildren (teenagers) adopt their parents' behaviour patterns, so if a family needs help with a child, then it is the parents who need to set an example through their own behaviour, actions, etc.

The choice of environment is important. From adolescence, it is necessary to teach the child to choose the environment and people to communicate with. So-called "toxic" relationships can also occur between people during adolescence, and they need "resource" communication to grow and gain positive experiences.

Similar studies on the level of stress and stress tolerance in adolescence of persons without psychophysical disorders (high school) were conducted by L. Kurbatova [19], S. Laika, O. Fedoruk, [20]. The results obtained were somewhat opposite to those described in this study of children with special needs. Since researchers have identified a higher level of anxiety at the beginning of adolescence, when there are changes in interests, social circles, etc. And in children with special educational needs, the predominant stress and an increase in the level of anxiety can be observed in 16-17 years – the period when it is necessary to go into adulthood, choose among the possible (acceptable, that is, depending on the characteristics of development of their business, activity, profession). Thus, children with typical development have other worries at this age: who to be friends with, how people perceive them, how to become a leader. Only a small percentage of high school students think about the professional aspect of life, because they are convinced that everything is decided by their parents, so the personal issues come to the fore. Children with special needs, in particular, those with hearing impairments, have a number of formed fears and a high level of anxiety. These fears relate to professional choices, personal relationships, and their place among peers with typical development. (**which will be discussed in more detail later*).

According to the results of diagnostics of senior schoolchildren with hearing impairments "Test to determine the level of stress" (V. Shcherbatykh) [16], intellectual, behavioural, emotional, and physiological signs of stress were established:

- emotional signs: anxiety, increased anxiety, suspicion, negative mood, pessimism, feelings of constant melancholy, depression, irritability, fits of anger, emotional "dullness", indifference, cynical and inappropriate humour, decreased sense of self-confidence, decreased satisfaction with life, feelings of alienation, loneliness, loss of interest in life, decreased self-esteem, the appearance of feelings of guilt or dissatisfaction with oneself or own work (which was performed by a high school student);

- behavioural signs: loss of appetite or overeating, an increase in mistakes during the performance of habitual actions, fast or, conversely, slow speech, trembling of the voice, an increase in conflict situations at school or in the family, chronic lack of time, a decrease in time devoted to communication with relatives and friends, loss of attention to one's appearance, unkempt, untidiness, antisocial, conflict behaviour, low productivity, sleep disorders or insomnia, the beginning of smoking or alcohol consumption;

- physiological signs: pain in various parts of the body of an indeterminate nature, headaches, increased or decreased blood pressure, rapid or irregular pulse, digestive

disorders (diarrhoea, bulimia, anorexia, etc.), impaired breathing, a feeling of tension in the muscles, increased fatigue, trembling in the hands, convulsions, the appearance of allergies or other skin rashes, increased sweating, rapid increase or loss of body weight, decreased immunity, frequent ailments (skipping school classes, even remote ones, no strength to get up, headaches, weakness, etc.);

– intellectual signs: preference for negative thoughts, obsessive thoughts, problems with concentration, deterioration of memory indicators, constant concentration and stopping of thoughts on a particular one, returning to it, increased level of distraction, problems with decision-making, prolonged fluctuations in the choice of a particular solution, negative dreams, nightmares, a large and frequent number of mistakes, especially during certain calculations, passivity, desire to shift responsibility to someone else, violation of logic, confusion of thoughts and thinking, impulsivity of behaviour, quick and ill-considered decisions.

The diagnostic results state 5 levels of stress in the surveyed individuals. The first level is characterised by the absence of any tension at the moment, no stress, and the person is calm. The second level indicates moderate stress, which can be compensated by rational use of time, periodic rest, and finding optimal ways out of the situation. The third level of stress indicates a fairly pronounced tension of the emotional and physiological systems of the body, which arose in response to a strong stress factor that the student could not compensate for. In conditions of this level of stress, it is necessary to use special methods of coping with stress and the corresponding conditions that accompany it. The fourth level indicates that the student has a strong state of stress, which requires the help of a psychologist or psychotherapist to successfully overcome. Such a high level also indicates that the body is on edge and cannot resist stressful situations. The fifth level of stress indicates the transition of the student's body to the most dangerous stage of stress – the depletion of adaptive energy reserves (Tables 1, 2).

Table 1. Comparative analysis of stress levels according to “Test to determine the level of stress” (V. Shcherbatykh) in older schoolchildren with hearing impairments (by age criterion, in %)

Levels	15 years old (61 people)	16 years old (57 people)	17 years old (49 people)
First level	49	37	41
Second level	27	28	16
Third level	11	11	19
Fourth level	9	13	15
Fifth level	4	11	9

Table 2. Summary values of correlations between indicators of stress level and the age of students who were tested (based on the results of an empirical study)

Stress levels in high school students	15 years old	16 years old	17 years old
First level	364	280	394
Second level	554*	551*	324
Third level	594**	598**	594**
Fourth level	546*	582*	554*
Fifth level	551*	774*	744**

Notes: **Significance level $p < 0.01$; *Significance level $p < 0.05$

Thus, according to the method “Test to determine the level of stress” (V. Shcherbatykh), many high school students have high indicators for the fourth and fifth levels, which indicate the depletion of adaptive energy reserves and low-stress capacity of the individual. Under such conditions, students definitely need the help of a psychologist or psychotherapist to avoid the destructive effects of stress on the body and mental state of a growing personality.

The tendency to stress is mainly characteristic of passive, dependent, highly anxious or prone to depressive, hypochondriac reactions of individuals, dysthymics and hypothyms. At the same time, it is possible to establish a link between depression, anxiety, and stress tolerance. The availability of stress for a high school student increases in conditions of lack of sleep, physical or mental exhaustion, after an illness, etc. Without a doubt, the natural (genetic)

strength and endurance of an older student against stress, that is, stress resistance, is of great importance.

Children are more stressed than adults. Thus, in early school age, physical and natural stressors have a stronger impact, and in adolescence – intellectual and emotional ones. In an adult and an older student, stress has both many common characteristics and differs in a number of features (emotional, behavioural, and physiological). What is commonplace for an adult can cause a violent psychosomatic reaction in a student, for example: to approach and ask a stranger how to get to a certain place, or a reaction to meeting the teacher on a day off during a walk. For an adult it is nothing special. A student may have a change in heart rate, wet palms, increased blood pressure, panic fear or irritation (reactions are very personal).

Based on the results of the “Methods for detecting personal and situational anxiety” (C. Spielberg) [18],

data obtained on situational and personal anxiety in older schoolchildren aged 15, 16, and 17 years indicate that students

are characterised by a high level of situational anxiety and a moderate level of anxiety (Table 3).

Table 3. Average indicators of the level of anxiety of older schoolchildren according to the “Methods for detecting personal and situational anxiety” (C. Spielberg) (in %)

Anxiety levels	15 years old	16 years old	17 years old
High level of situational anxiety	47	44	49
Moderate level of personal anxiety	40	43	46

At the age of 15, the indicator of situational anxiety is 47% and a moderate level of personal anxiety is 40%. At the age of 16, the indicators are also quite high, in particular, situational anxiety (44%) and moderate personal anxiety (43%).

In high school students aged 17, these indicators increase significantly, for example, the indicator of situational anxiety increases by an average of 4%, and personal anxiety – by an average of 2% (Fig. 1).

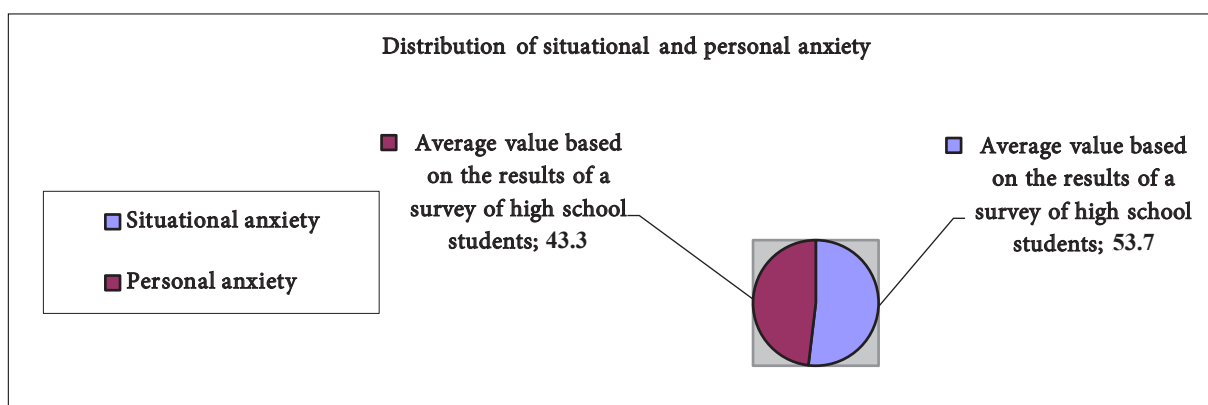


Figure 1. Average value of the level of personal and situational anxiety in older schoolchildren according to “Methods for detecting personal and situational anxiety”, %

Source: C. Spielberg [18]

There were almost no significant differences in the level of severity of situational and personal anxiety between senior students aged 15 and 16 years, but there was a difference in the attitude to stressful situations of senior students aged 17 years. For the specified age, it is worth remembering that any deviations from the norm of test results are a warning sign and require psychological help.

The world has changed and ceased to be at least relatively stable and understandable, and predictable. It is not just a large number of high school students who are in a state of ambivalence similar to schizophrenia. For example, during a meeting with friends, they want to hug and, at the same time, avoid it. Many people, especially in wartime, have lost their support, stability (relatives, homes, funds, etc.) and, therefore, do not trust any information, but at the same time constantly search for it on the Internet, subscribe to many channels in various messengers. It also increases the level of personal anxiety of older students who still have an underdeveloped mental reality.

In high school students, virtual communication now displaces the real and violates the sense of reality, creates illusions of perception. Long-term planning has become impossible, the ability to control the situation decreases, and, accordingly, the sense of security disappears. Thoughts about the possible bombing and death of their

own and loved ones arise in many people, especially different thoughts are formed in people aged 15-16 years.

The main task of a psychologist in such conditions is to support the process of developing ruminative thinking in combination and directing it to constructive reflection. Now all teenagers (high school students as well) are under collective stress, when two ways of personal transformation are possible – destructive and constructive [1; 4; 8].

Destructive: beliefs and behavioural strategies that do not allow adapting to new living conditions are dominated by negative information selection and globalisation of the smallest problems. As a result, these are depressive states, post-traumatic stress disorders, neurotic states, fears, refusal to continue studying – even remotely, etc. The desire to return to the old way of life and longing for it without considering the immutability of new circumstances, living in the illusion that nothing is happening – leads only to destructive states [1; 4; 8].

Constructive differs, as strange as it may sound, by accepting the situation and developing specific ways of action to solve specific everyday problems, consciously regulating the process of thinking about trauma, its impact on life, continuing education (if there are remote platforms) until they appear – self-education, self-preparation for future admission to higher education. Constructiveness means accepting

the situation, moving on to planning “here and now”. What a person can do constructively: being aware of and using effective ways to organise own life and help others. Supporting oneself, getting rid of guilt (that it is difficult to help, do something useful at this age, etc.), not being responsible for others, such as friends who have not left, or neglecting and hiding in a bomb shelter and the like [1; 4; 8].

According to the results of the “Methods of perceptual assessment of the type of stress resistance” (N. Fetiskin), it was established that 64% of high school students aged 15 years are characterised by a tendency to perceptual type A [17]. These individuals manifest instability in stressful situations quite often. 1.9% of representatives at this age have a perceptual type B, which means that they clearly define the goals of their activities and choose the best ways

and methods of achieving them, strive to deal with difficulties themselves, analyse difficulties and their occurrence, and draw the right conclusions. They can work for a long time under strong tension (both physical and psychological). They are able and strive to allocate time efficiently. Unexpected situations, as a rule, do not unsettle them.

That is, 1.9% of students in the study group are resistant to stress. 21.7% of students in the 15-year-old group are prone to type B, they most often show stress resistance, but not always. And 12.4% of the representatives of the study group have a low stress resistance, they are characterised by the desire to compete, achieve goals, are usually dissatisfied with themselves and their circumstances, and begin to strive, change new goals, often they show aggressiveness, impatience, hyperactivity (Table 4).

Table 4. Perceptual types of stress resistance of senior schoolchildren according to the “Methods of perceptual assessment of the type of stress resistance”, %

Types of stress resistance Age of schoolchildren	Type A	Predisposition to type A	Type B	Predisposition to type B
15 years old	64	12.4	1.9	21.7
16 years old	64	14.7	1.7	19.6
17 years old	66	16.5	2.3	16.2

Note: *Significance level $p < 0.05$

Source: N. Fetiskin [17]

Thus, the results of the study of the perceptual type of stress resistance indicate the presence in the group of people at the age of 15 who are prone to type A and type B. 1.9% of people have a high level of stress resistance and 64% have a low level of stress resistance, the rest of the subjects are prone to type A or type B.

According to the results of a survey of 16-year-olds, a predisposition or belonging to type A was revealed – 78.7%, and 21.3% predisposition or belonging to type B.

Data obtained in the group of high school students aged 17 indicate that 81.5% of students are predisposed to or belong to type A, and 18.5% of representatives of the study group are predisposed to type B. The distribution of students is shown in Table 3.

Significant differences in the level of stress tolerance were found between high school representatives aged 15 and 17 years with a significance level of $p \leq 0.05$. Average values indicate that in the 15-year-old group of people, students have less stress tolerance and most of them are predisposed to or belong to type A.

To identify relationships between indicators of stress levels, anxiety, and stress tolerance in high school students at different age stages, the obtained empirical data were subjected to correlation analysis.

Correlations between indicators of stress resistance and anxiety suggest that the indicator of the level of situational anxiety is negatively associated with indicators of stress resistance ($r = -0.42$, $p \leq 0.05$). This indicates that high levels of anxiety in various situations reduce the emotional resistance of a high school-age person to stress, such as in a

situation of anxiety. But the indicators of the level of stress resistance are positively interrelated with the indicators of personal anxiety ($r = 0.34$, $p \leq 0.05$), that is, the higher the indicator of the level of stress resistance, respectively, the lower the stress resistance of high school students, the higher the personal anxiety.

The results of correlation analysis in the studied groups of high school students indicate that there is a relationship between the indicators of stress resistance, anxiety, and the general level of stress, which is expressed in the fact that with low stress resistance, high school representatives are more prone to personal anxiety, which affects the level of stress, raising it to levels 4 and 5, when the individual is not able to manage their own emotions.

CONCLUSIONS

The conducted study contributes to the awareness of the need to develop stress tolerance, both situational and personal, and reduce the level of anxiety in older schoolchildren.

The results obtained revealed a high level of stress in older schoolchildren with hearing impairments. Data from a survey of schoolchildren indicate the need to develop stress tolerance, both situational and personal, and reduce the level of anxiety in students. It is especially important for older students with hearing impairments to develop a natural protective response that would allow stress not to adversely affect their health, well-being, emotions, and behaviour. Thus, the study established and outlined several tips for the subjects. And further research on the topic is planned with the development of a programme for older

schoolchildren, which would help develop stress tolerance and create trainings for children and parents on stress, stressors, and distress.

The problem of increasing the level of stress resistance in children of high school age with hearing impairments demonstrates disappointing conclusions, referring to the data obtained, it is possible to characterise a high level of stress and anxiety, which requires further conversations, observations, possibly the use of additional techniques regarding fears, social communication, etc. The conducted study already indicates that stress negatively affects the body of a growing person, negatively affects health, psychological state, self-regulation, and self-control. Students become inattentive, often forget important information, have increased neuroticism, describe terrible dreams,

some of them describe the symptoms of panic attacks, etc. Thus, it is planned to further study and develop recommendations for increasing the level of stress resistance in high school-age students with special educational needs (hearing impairment). As outlined above, it is also planned to conduct a study of stress, anxiety, and stress tolerance in students with hearing standards. This will help determine: first, whether this is an exceptional feature of the considered individuals or is a characteristic feature of the age category of students. The authors also aim to establish gender-specific features of stress tolerance to develop an up-to-date, useful, and effective psychological programme and provide assistance to students, their parents, and teachers working with children with special needs, in particular, students with hearing impairments.

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Ольга Анатоліївна Вовченко

Інститут спеціальної педагогіки і психології ім. М. Ярмаченка
Національної академії педагогічних наук України
04060, вул. М. Берлінського, 9, м. Київ, Україна

Емоційно-поведінкові реакції старшокласників з особливими освітніми потребами (особи з порушеннями слуху) в умовах стресу

Анотація. Актуальність дослідження зумовлено постійним стресом, у якому нині живуть українці. У статті це розглянуто також з позиції періоду колективного стресу, що залежить не лише від власної схильності особистості до тривожності чи невротичних реакцій, а й від соціального оточення. Стаття актуальна ще й тим, що розкриває основні шляхи допомоги психолога в таких ситуаціях: процес підтримки, розвиток позитивного мислення, що буде поєднуватися та спрямовуватися до конструктивної рефлексії. Проблема ж колективного чи особистісного стресу полягає в наслідках, що призводить до панічних атак, емоційного вигорання, невротизації та інших неврологічних ускладнень, зокрема в осіб юних (старший шкільний вік, підлітковий, юнацький), коли психіка зазнає постійних змін, схильна до навіювання і ще не має чітких орієнтирів життєвого руху. В таких умовах стресу можливими є два шляхи трансформації особистості – деструктивний та конструктивний. Тож головною метою публікації є праксеологічне дослідження емоційно-поведінкових реакцій старшокласників з особливими освітніми потребами, виявлення стану тривожності, рівня стресу, що впливають на їх регулятивну сферу загалом. Серед основних методів використано теоретичні: дедуктивний (аксіоматичний і гіпотетико-дедуктивний) – для системного опису явища, що досліджується; індуктивний (для встановлення закономірностей, систематизації, типології на основі результатів емпіричного дослідження) та спеціальні емпіричні: психологічна діагностика рівня стресу «Тест на визначення рівня стресу» (В. Щербатих), «Методика перцептивної оцінки типу стресостійкості» (Н. Фетіскіна), «Методика для виявлення особистої та ситуативної тривожності» (Ч. Спілбергера); методи математичної статистики. У результаті дослідження виявлено відносно однаковий але досить високий рівень стресу та тривожності у старшокласників з особливими освітніми потребами. Крім того, визначено, що приваляють переконання та стратегії поведінки, які не дозволяють адаптуватися до нових умов життя, переважає негативний відбір інформації та глобалізація найменших проблем. Встановлено основні прояви стресу, як-от: депресивні стани, посттравматичні стресові розлади, невротичні стани, страхи та багато інших постстресових реакцій психіки та організму. Визначено показники тривожності, стресостійкості, стресовитривалості та загального рівня стресу показали високі кореляційні зв'язки, що вказує на низький рівень опору підростаючої особистості за умов невизначеності, змін, особистісних та соціальних криз. З'ясовано, що нині, основна задача психологів – це корекційно-роз'яснювальна, терапевтична, корекційна робота з дітьми з особливими освітніми потребами, особливо під час вікових криз

Ключові слова: діти з особливими освітніми потребами, слух, старший шкільний вік, стресовитривалість, стресори, стресостійкість, дистресори, тривожність