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**STUDY OF INDIVIDUAL-TYOLOGICAL CHARACTERISTICS  
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elens160469@yandex.ru**Abstract**

This paper assesses the individual typological characteristics of pupils in grades 10-11 of the "Governor's Cadet Boarding School of the Ministry of Emergency Situations", which belong to the category of the rescuers' professional qualities. A diagnostic research is aimed at identifying the severity of personal anxiety, stress resistance, willingness to take risks, resilience. A comparative assessment of the obtained indicators of individual-typological characteristics of cadets was given. A direct moderate relationship was revealed between the indicators of personality stress resistance and resilience, as well as between personality stress resistance and situation control. But an inverse correlation was established between the level of personal anxiety and control as a component of vitality, between the level of personality anxiety and stress resistance of a personality of moderate and moderate severity, respectively. It is confirmed that if the cadets of the school of the Ministry of Emergency Situations undergoing initial special training in rescuing people in emergencies have high level of stress resistance, resilience, readiness for risk and low personal anxiety, then they, choosing the professional activities of rescuers of the Ministry of Emergencies, more easily adapt to the stressful complexities of the chosen profession. The results of this research can be used to determine the professional orientation of students.

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*Keywords:* Professional qualities, individual typological characteristics, personal anxiety, stress resistance, willingness to take risks, resilience



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## **1. Introduction**

At the present stage of development of society, science and production are becoming more capacious and highly technological, which means that there is a high risk of various kinds of disasters. As a result of various extreme situations, millions of people die every year all over the world. Therefore, the high qualifications and resource capabilities of specialists involved in the elimination of the consequences of emergencies, namely, the specialists of the Emergencies Ministry's rescuers, are of particular importance. The professional activity of rescuers takes place in extreme conditions and is characterized by the impact of many stress factors. If rescuers have insufficiently developed vocationally important qualities, then this leads to a decrease in the efficiency of activities, professional burnout and various psychosomatic disorders.

Taking into account the dynamics of working capacity, the degree of fatigue of the rescuers of the Ministry of Emergency Situations, the peculiarities of their work, it can be concluded that the work of the rescuer belongs to the categories of hard and very hard work, therefore, special requirements are imposed on the professional qualities of the future rescuer. The study of the individual typological characteristics of the students trained at the cadet school of the Ministry of Emergency Situations is an important problem, since trainees not only acquire the basic skills of a rescuer and can apply them in case of an emergency, but every year more than 60% of cadets after graduation from school enter the educational institutions of the Ministry of Emergencies and the Ministry of Defense of the Russian Federation. This fact determined our scientific interest in the research issue.

## **2. Problem Statement**

The study of the individual typological characteristics of the students trained at the cadet school of the Ministry of Emergency Situations is an important problem.

## **3. Research Questions**

The modern society is characterized by an increase in the frequency and scale of extreme situations associated with natural disasters, man-made disasters and conflicts in the form of armed actions of both individuals and groups, actions of terrorists and military actions of states. Consequences of natural disasters can be material, social, medical and psychological. These results are experienced not only by the victims, but also by the entire population. Rescuers have to work in emergencies.

Any professional activity implies the presence of certain physical and psychological qualities, as well as personal qualities that will contribute to a person's success. First of all, this applies to professions where the object of professional activity is another person. The lifeguard profession belongs to the "higher type" professions based on the need to constantly reflect the content of the subject of its activity. Therefore, a rescuer must have certain personal qualities, without which he will not be successful in his work.

The list of professional qualities is long, there is a number of them that "...can be attributed to any professional activity: responsibility, self-control, professional self-esteem. In addition, there are more specific qualities such as emotional flexibility, anxiety, attitude to risk, resistance to stress, etc." (Leontiev et al., 2020, pp. 1-13).

The rescuer must have such professionally important qualities as courage, ability to take responsibility, self-confidence, ability to make the right decision with the minimum amount of necessary knowledge and the lack of time to understand it. If necessary, the rescuer should remain highly active for a long time, be able to highlight and, during the transition, pay attention to many actions and tasks in order to have a good memory, balance, be ready for a certain amount of risk, conflict situations, etc. The absence or insufficient development of these qualities leads to decrease in working capacity, professional activity and the development of neurotic and psychosomatic disorders (Kuznetsova & Zolotareva, 2017).

The professional activity of rescuers is one of the most stressful types of social activity in psychological terms. It belongs to the group of professions with a high proportion of stress factors, which leads to the presentation of increased requirements for such characteristics as stress resistance.

Realizing in any professional activity, a person acquires the ability to discover new types of activity. The conditions of modern life make special demands on the ability of a specialist to overcome various situations. Therefore, such a personality quality as resilience becomes very important, which ensures the transformation of stressful events into new opportunities (Molchanova & Redkin, 2014). Readiness for risk allows us to assess a person's behavior in non-standard or dangerous situations, when the established norms and rules may be violated when making decisions. Concerning rescuers of the Ministry of Emergencies, their risk readiness indicator should be low, since the rescuer has no right to risk other people's lives even in an emergency situation, which means that his every action should be deliberate and well-coordinated. Measuring anxiety as a personality trait is especially important, since this property largely determines the behavior of the subject (Kuznetsova & Zolotareva, 2017). As a predisposition, personal anxiety is activated when certain stimuli are perceived by a person as dangerous to self-esteem and self-esteem. If the psychological test expresses in the subject a high indicator of personal anxiety, then this gives reason to assume that the person has the appearance of a state of anxiety in various situations.

The concept of stress resistance has received a fairly wide coverage in the scientific literature. Stress resistance is understood by various researchers as the ability to stable emotional or mental stability, as resistance and endurance:

Stress resistance is a systemic personality trait that integrates emotional, volitional, intellectual and motivational components of a person's mental activity, which ensure success in achieving a goal in a difficult emotional environment. Resistance to stress is the basis of success in society, the basis for emotional stability, a low level of anxiety, a high level of self-regulation, and psychological readiness for stress factors (Emelin et al., 2018, p. 30).

The research has shown that there is a relationship between stress resistance and a number of psychological qualities. People with anxiety are more prone to emotional stress than those who develop anxiety only in non-standard, dangerous situations. There are personality traits that can help you deal with stress, such as commitment, control, and stamina:

Obligation – promotes full dedication to your business, whatever it may be; having control makes it possible to think and act as if you can influence the course of events; endurance provides confidence that life is changing and that change is the engine of progress and personal development. People possessing these qualities are called decisive, since they can withstand stressors and perceive changes as a challenge to life situations, and not as a threat (Kaliteevskaya & Leontiev, 2006, p. 51).

Thus, to work as a rescuer of the Ministry of Emergency Situations, a whole range of professional qualities is required, such as a certain willingness to take risks, resistance to stress, decisiveness, resilience, courage, etc.

#### **4. Purpose of the Study**

To study theoretically and practically the changes in the individual typological characteristics of cadets during their studies at boarding school.

#### **5. Research Methods**

To study the individual typological characteristics of 84 students of the Governor's Cadet Boarding School of the Ministry of Emergencies, the following methods used:

private research methods: observation, reviewing, analysis and generalization of scientific literature on the research problem, substantiation of the theoretical and methodological basis of the research; reviewing, analysis and generalization of pedagogical experience.

- the STAI questionnaire was used to assess personal anxiety. The technique was developed by C.D. Spielberger, in our country the scale was adapted by Yu.L. Khanin and is known as the Reactive and Personal Anxiety Scale.
- stress resistance was assessed according to Kirsheva, and Ryabchikova (2015).
- risk readiness was assessed using the Schubert questionnaire.
- the test of vitality is an adaptation by D.A. Leontiev. The Hardiness Survey was developed by the American psychologist Salvatore Maddy (Leontiev et al., 2020; Sheldon et al., 2018).

All the statistical data obtained were subjected to mathematical analysis in the Microsoft Office Excel program: calculation of averages, comparison of averages, percentage, correlation analysis. The degree (strength, tightness) of correlations was assessed in accordance with the generally accepted scale, in values from -1 to +1. The stronger the connection between features is, the higher the correlation value is observed.

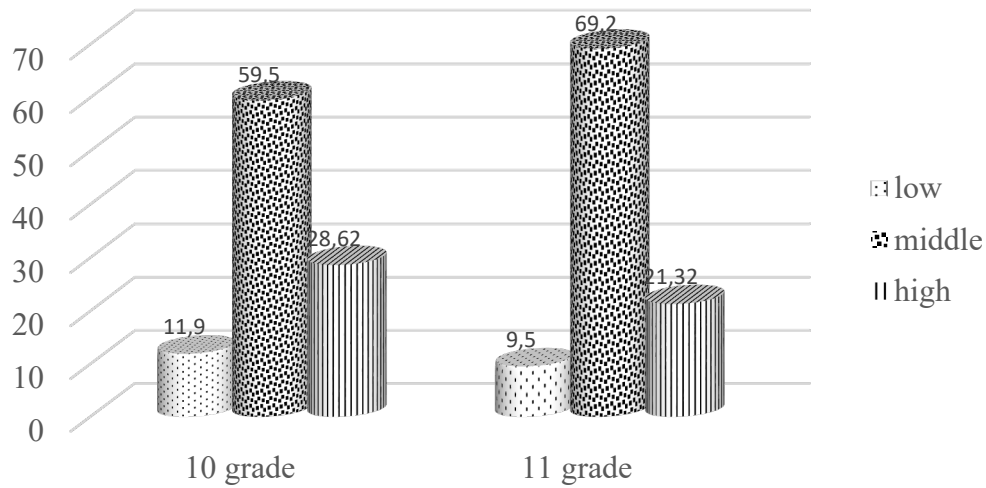
#### **6. Findings**

The study was conducted in 2019-2021. There were 84 respondents answered the questionnaires 2 times: in the first half of the 10th grade and the next academic year in the second half of the 11th grade. The survey was conducted according to the following indicators: personal anxiety, the level of stress resistance, the degree of readiness to take risks, resilience.

Personal anxiety is an individual characteristic and very persistent. A person's predisposition to anxiety speaks of his ability to perceive the situation as something threatening and respond to the non-emergence of a state of anxiety. It should be noted that the intensity of the emerging anxiety does not always correspond to the objective danger.

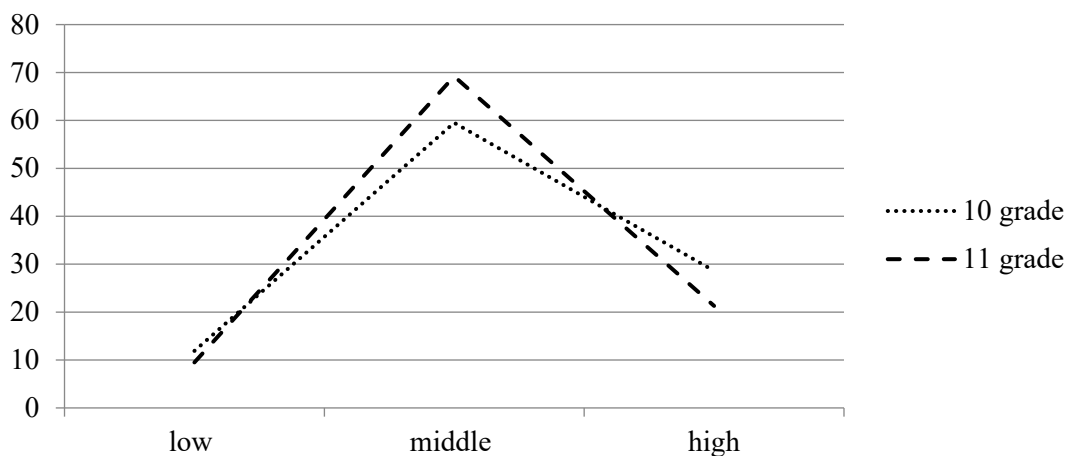
[The research showed that in the 10th grade the majority of respondents (59.5%) had an average level of personal anxiety, 11.9% had a low level of personal anxiety and 28.6% had a high one. After a year of study at the cadet school, the indicators changed towards a decrease in the number of students with high

and low levels of personal anxiety (21.3% and 9.5%, respectively) and an increase with a middle level of 69.2% (Figure 1).



**Figure 1.** Indicators of the students' personal anxiety (10 and 11 grades)

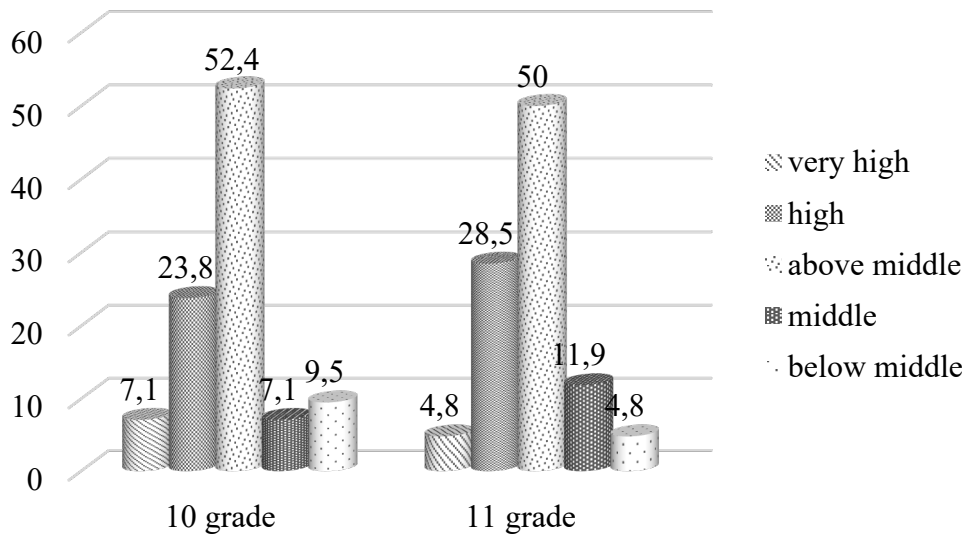
If the psychological test expresses in the subject a high indicator of personal anxiety, then this gives reason to assume that he has the appearance of a state of anxiety in various situations. Students with a high assessment of anxiety should develop a sense of confidence and success, they need to aim at understanding their activities through clear planning. For low-anxious adolescents, it is required to increase their activity and interest in solving a specific problem. The research showed that over the years of study at a boarding school, the number of students with middle level increased by 9.7% due to a decrease in those with a high level of anxiety by 7.3% and a decrease by 2.4% of students with a low level (Figure 2).



**Figure 2.** Comparison of personal anxiety indicators (10-11 grades)

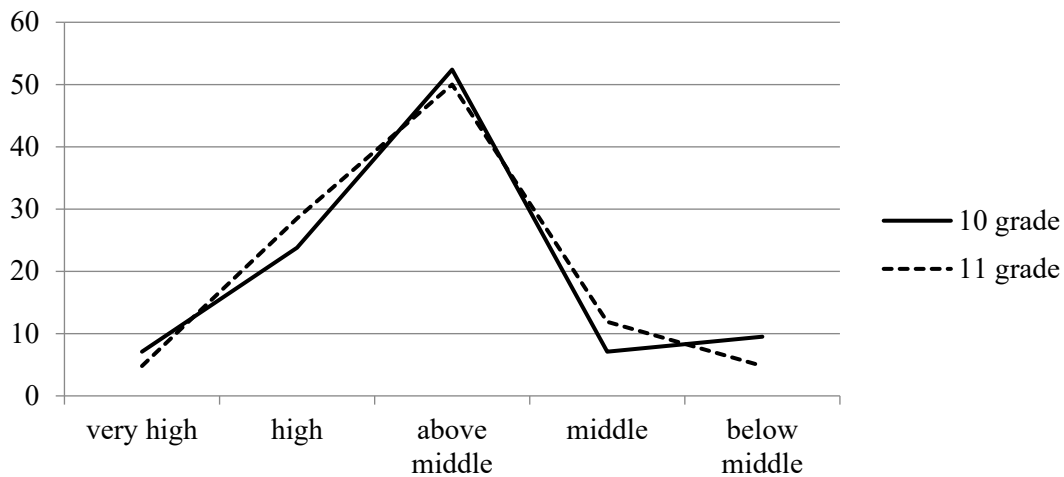
Determination of the stress resistance level showed that in the 10th grade the majority of respondents (52.4%) had an above the middle level of stress resistance, 23.8% had a high level, and 7.1% had a very high level. The middle level of stress resistance was noted in 7.1% of the respondents, the level below the

middle - in 9.5%. In the 11th grade, the number of cadets with a very high and below middle level of stress resistance decreased - 4.8%, and the number of respondents with an average and high level increased - 11.9% and 28.5%, respectively. The level above the middle was 50% (Figure 3).



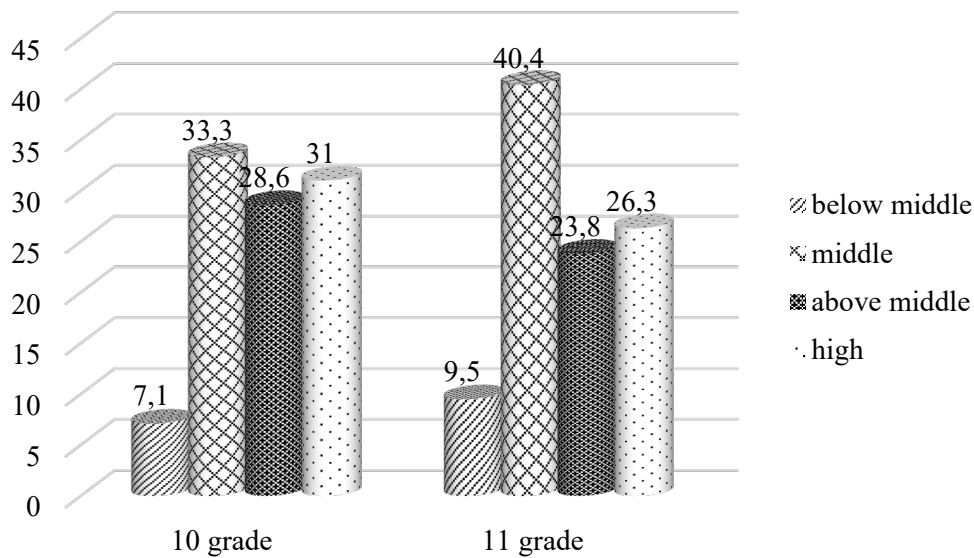
**Figure 3.** The level of personal stress resistance (10 grade)

Therefore, it can be concluded that in the 11th grade 90.4% of the respondents are able to control their emotional state, which is very important in the work of a rescuer (Figure 4).



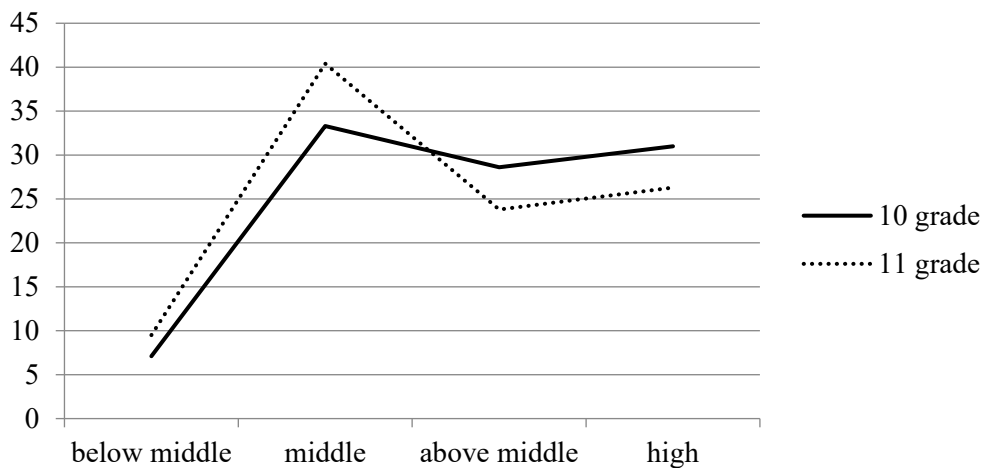
**Figure 4.** Comparison of indicators of the personality stress resistance level (10-11 grade)

The research has shown that in the 10th grade 33.3% of cadets had a middle degree of risk readiness, values above middle were noted in 28.6%, and 31.0% of respondents had the greatest risk appetite; 7.1% of the respondents were in the range of values below the middle. A high willingness to take risks can be directly proportional to the number of mistakes made. With age, the willingness to take risks decreases, and the more experienced workers in their profession have low willingness to take risks (Figure 5).



**Figure 5.** Degree of risk readiness (11 grade)

Assessing the degree of risk readiness after a year, the following results were obtained. The percentage of cadets with a high propensity to take risks decreased (26.3% - a high degree, 23.8% - above middle) and increased from a low - 9.5% and middle degree - 40.4% (Figure 6).



**Figure 6.** Comparison of indicators of the risk readiness degree (10-11 grade)

Resilience allows a person to perceive even negative events as experiences. The components of resilience (involvement, control and risk acceptance) serve as the basis for an active search for something interesting in life, controllability of the situation when a result is achieved and a willingness to act and learn from the result.

The study assessed both the resilience itself and each of its components separately. The analysis of the test showed the following results. Average involvement rates were found in 69.0% of respondents. High and low involvement in 26.2% and 4.8% of respondents, respectively. High confidence in control over the situation was possessed by 52.4%, and 47.6% - average. Average values of risk acceptance were observed

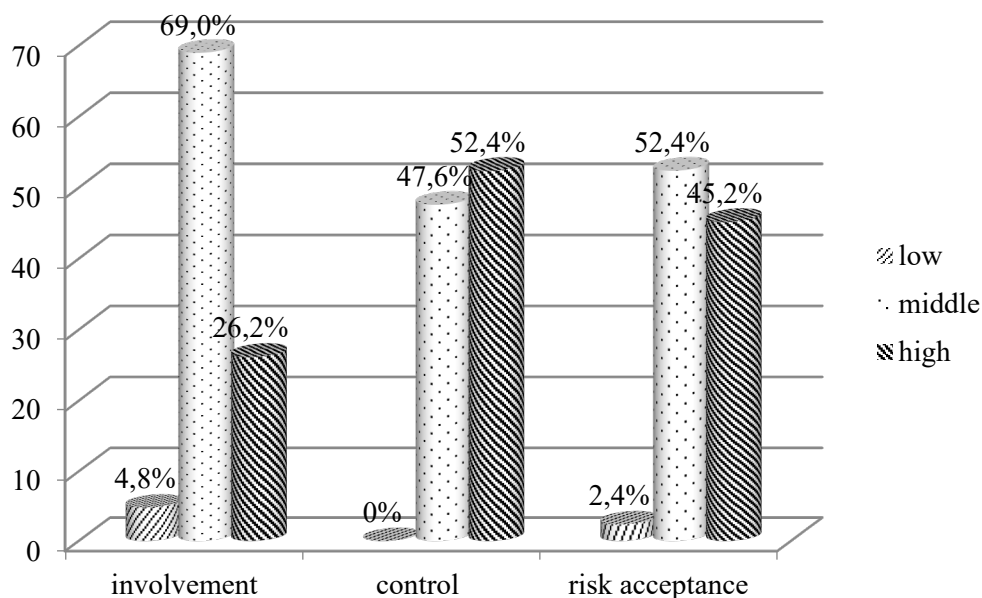
in 52.4% of the cadets studied; 45.2% of the respondents were ready to act more readily despite the uncertainty of the situation. Two students, which amounted to 2.4%, showed the value of the “risk acceptance” indicator below the middle (Figure 7).

In the 11th grade, the indicators of involvement changed towards an increase in the average indicators - 76.2%. High involvement was 23.8%. There were no respondents with low involvement. 57.2% had high confidence in control over the situation, and 42.8% - a middle one. The values of risk acceptance changed in the direction of increasing middle indicators - 59.6%, high values were in 40.4% (Figure 8).

The indicator of resilience, as a system of beliefs about oneself, the middle level was noted in 45.2% of the respondents in the 10th grade; 50% of the respondents had a level of resilience above the middle. The below middle level was shown by 4.8%, i.e. four out of 84 cadets studied. In the 11th grade, 52.4% had middle values, and 47.6% had higher than middle ones (Figure 9).

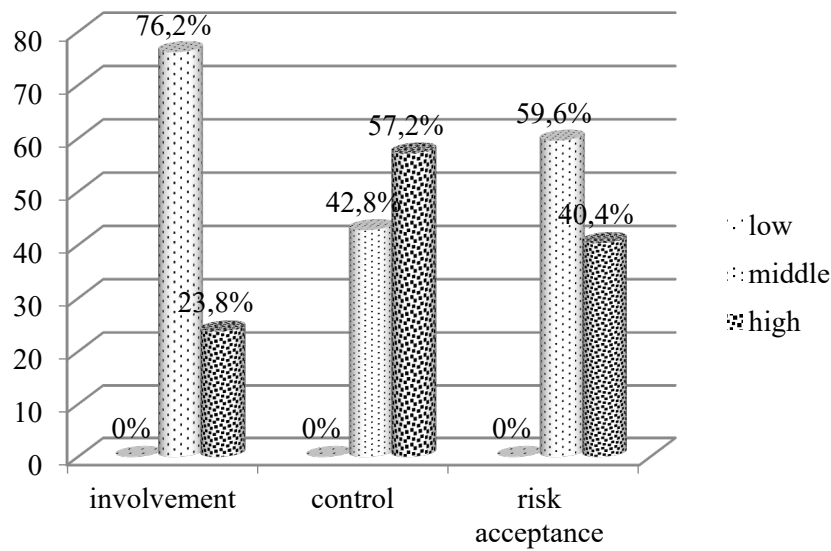
Resilience promotes active overcoming of difficulties, which means that it stimulates concern for one's own well-being and health. Thanks to this, the tension and stress that a person experiences do not develop into psychosomatic illnesses. People with high resilience are convinced that everything that happens to them contributes to their development with the help of the knowledge that they receive through experience (Sheldon et al., 2018).

In the frame of the research, there was assessed the relationship of the following indicators: personality stress resistance and resilience, personal anxiety and control, personality stress resistance and control, personal anxiety and personality stress resistance.

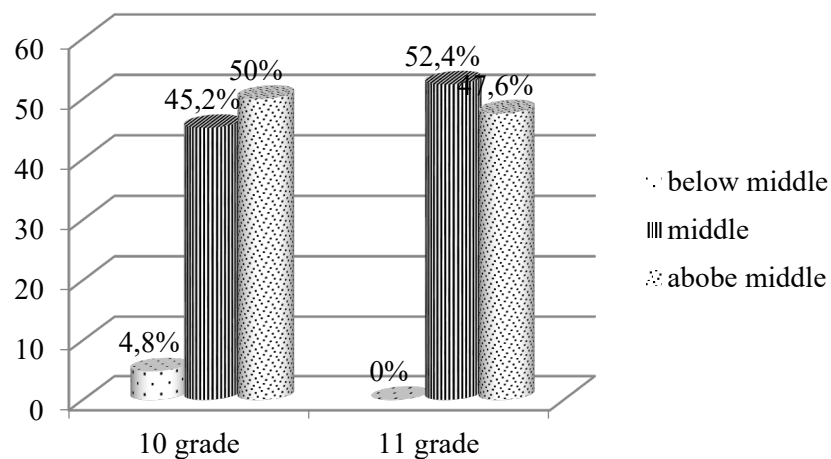


**Figure 7.** Values of resilience components (10 grade)





**Figure 8.** Values of resilience components (11 grade)



**Figure 9.** Resilience values (10-11 grade)

According to the literature data, anxious people are more prone to stress, but having control, as a belief in their ability to achieve a result, helps to successfully cope with stress. The study confirmed that there is a direct moderate relationship between the indicators of personality stress resistance and resilience ( $r = 0.45$ ), as well as between personality stress resistance and situation control ( $r = 0.39$ ). This means that the more resistant a person is to stress, the better he is in control of the situation and the more successfully he copes even with negative events.

Significant correlations of a negative orientation were observed between the level of personal anxiety and control, as one of their components of vitality ( $r = -0.42$ ), as well as between the level of personal anxiety and personality stress resistance ( $r = -0.54$ ), which is consistent with the data of the reviewed literature. Consequently, a high level of personal anxiety negatively affects the belief in the controllability of the situation and stress resistance. The research has shown that the higher the personal anxiety is, the lower the control and resistance to stress is observed.

## 7. Conclusion

As a result of the research carried out, the changes in the individual-typological characteristics of cadets during their studies at the boarding school were theoretically and practically studied. Theoretically and practically study the changes in the individual typological characteristics of cadets during their studies at boarding school.

Our study revealed that the majority of respondents had an average level of personal anxiety, a level of stress tolerance above the middle, a high degree of readiness to take risks, average and high values of resilience at the beginning of education. By the end of grade 11, the degree of readiness to take risks decreases, the indicators of involvement change towards an increase in middle scores and absences of low scores.

A direct moderate relationship was revealed between the indicators of personality stress resistance and resilience, as well as between personality stress resistance and situation control, an inverse correlation - between the level of personal anxiety and control as a component of resilience, between the level of personality anxiety and stress resistance of a personality of moderate and moderate severity, respectively.

Thus, the research confirms that the cadets of the Emergencies Ministry school, who have professionally important qualities necessary in their chosen professional activity, such as stress resistance, resilience, a certain willingness to take risks and low personal anxiety, will be able to adapt faster in extreme situations and can become good rescue specialists in the Ministry of Emergency Situations.

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