

**An empirical research of future rescuers' professional self-realization**

***Una investigación empírica sobre la autorrealización profesional de los futuros rescatistas***

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**Abstract**

This article presents the results of an empirical study of future rescuers' professional self-realization. It also describes the correlation analysis results. **The aim** of this research is to empirically investigate the future rescuers' professional self-realization. To determine the features of the cognitive-behavioral component the following **methods** were applied for the research: "Prognosis" methods (that is the assessment of nerve-psychological stability (NPS)), the "SACS" methods (S.Hobfoll, adapted by N.Vodopianova, O.Starchenkova), the multifactor personality questionnaire FPI, the "Compass" methods, the "Diagnosis of the readiness for risk" methods (A. Shubert). To determine the *motivational-value component* we used the "Determination of life goals and personal values" methods by P. Ivanov, Y. Kolobova, the "Study of the personality motivational profile" methods by Sh. Ritchie and P. Martin; and as to the *the emotional-volitional component* we used the "Diagnosis of the empathic abilities level" methods (by V. Boiko). Psychophysiological measurements were also conducted at the "Psychological Training Ground" complex, and the average score in specialized disciplines was used.

**Keywords:** self-realization, empathy, motivational profile, coping strategies, cadets, rescuers.

**Resumen**

*Este artículo presenta los resultados de un estudio empírico sobre la autorrealización profesional de futuros rescatistas y describe los resultados de un análisis de correlación. El objetivo de esta investigación es examinar empíricamente la autorrealización profesional de los futuros rescatistas. Para determinar las características del componente cognitivo-conductual, se aplicaron los siguientes métodos: métodos de "Pronóstico" (es decir, la evaluación de la estabilidad neuropsicológica (NPS)), el método "SACS" (S. Hobfoll, adaptado por N. Vodopianova y O. Starchenkova), el cuestionario de personalidad multifactorial FPI, el método "Brújula" y el método "Diagnóstico de la disposición al riesgo" (A. Shubert). Para determinar el componente motivacional-valorativo, se utilizaron los métodos de "Determinación de metas de vida y valores personales" de P. Ivanov y Y. Kolobova, así como el método de "Estudio del perfil motivacional de la personalidad" de Sh. Ritchie y P. Martin; y para el componente emocional-volitivo se emplearon los métodos de "Diagnóstico del nivel de habilidades empáticas" (V. Boiko). También se realizaron mediciones psicofisiológicas en el complejo "Campo*

de Entrenamiento Psicológico” y se utilizó el promedio de calificaciones en disciplinas especializadas.

**Palabras clave:** autorrealización, empatía, perfil motivacional, estrategias de afrontamiento, cadetes, rescatistas.

**Results.** Based on the conducted research, it was established that a significant portion of the studied cadets exhibited an individual-executive lever of professional self-realization and the lever realizing norms and roles. Among the life goals and values of the studied cadets, democracy, openness, material security, power, influence, health, personal growth, attachment, and love prevail. In stressful situations, they mainly use effective coping strategies. **Conclusion.** Empirically, it has been established that cadets who aspire to professional self-realization have a need for financial security, personal growth, a desire for a sense of satisfaction, a propensity for risk and assertive actions, an ability to establish social contacts easily, and a need to set and achieve complex goals in their growth and development.

## Introduction

Addressing the issue of personal self-realization in modern psychology is due to the relevance of issues related to the individual inner activity study, the maximum use of his or her resources in order to reveal them in the process of his or her formation, development, and professional activity. A number of scholars define self-realization as a conscious and purposeful process of revealing and objectifying the essential forces of a personality in its various practical activities; as a purposeful course of revealing the personality's own qualities in its life.

The scientific research analysis shows that the professional self-realization among future fire safety specialists is a complex and multifaceted process of potential professionalization gradual transformation into real professionalization, which takes place throughout life and professional career.

However, despite a significant scientific studies number, the problem of developing the professional self-realization among future fire safety specialists requires a thorough study, in particular the phenomenology understanding, classification and the phenomenon structure.

Scientists have considered the influence of higher education institutions on the self-realization process and its result. Thus, E. Garcia and N. Rolls emphasize the significant influence of higher education institutions on the self-realization formation and self-control. In addition, the researchers conclude that educational components and the educational process quality have a significant impact on the self-realization process of a future specialist<sup>1</sup>.

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<sup>1</sup> Garcia, E. G., & Rolls, N. (2023). Self-Realization and Self-Control Society: Colombian Higher Education System. *Journal of Hispanic Higher Education*, 22(2), 233-248. <https://doi.org/10.1177/15381927221105613>

The main components of the professional self-realization formation are the higher education institution choice and further work, the direction and activity type, formation and professional growth in the chosen professional activity, which shows the professional self-realization effectiveness<sup>2</sup>.

Studying the issue of the “Authentic Inner Compass”, researchers have found that self-realization has a direct impact on its formation. That is, the ability and opportunity to self-realize will have a positive impact on the autonomy formation, self-confidence, and will contribute to the activation of volitional processes and overall well-being<sup>3</sup>.

Scientists have found that girls and boys are mostly focused on material values, self-realization, and career growth, which can prevent the most comprehensive realization and life high quality in the future<sup>4</sup>.

When studying professional self-realization, researchers argue that the higher the level of professional self-realization depends on the dominant professional activity motives<sup>5</sup>.

Some researchers consider professional self-realization to be a factor in the psychological well-being of professionals in helping and caring professions<sup>6</sup>.

The empathy influence on the professional specialists’ self-realization in helping and risky professions is highlighted. The professional self-realization peculiarities of servicewomen are investigated<sup>7 8</sup>.

**The purpose** is to empirically study the professional self-realization among future rescuers.

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<sup>2</sup> Yaremko, R., Vavryniv, O.; Tsiupryk, A., Perelygina, L., & Koval, I. (2022). Research of content parameters of the professional self-realization of future fire safety specialists. *Amazonia Investiga*, 11(53), 288-297. <https://doi.org/10.34069/AI/2022.53.05.28>

<sup>3</sup> Assor, A., Benita, M., Shi, Y. *et al.* The Authentic Inner Compass as a Well-Being Resource: Predictive Effects on Vitality, and Relations with Self-Esteem, Depression and Behavioral Self-realization. *J Happiness Stud* 22, 3435–3455 (2021). <https://doi.org/10.1007/s10902-021-00373-6>

<sup>4</sup> Stroyanovska, O., Dolynska, L., Shevchenko, N., Yermakova, S., Matiash-Zaiats, L., & Kriukova, O. (2021). Features of Students Ideas about Life Success. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(1), 136-153. <https://doi.org/10.18662/brain/12.1/175>

<sup>5</sup> Bedan, V., Brynza, I., Budiianskyi, M., Vasylenko, I., Vodolazska, O., & Ulianova, T. (2021). Motivative Factors of Professional Self-Realization of the Person. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(2), 18-37. <https://doi.org/10.18662/brain/12.2/189>

<sup>6</sup> Olena D. Glavinska, Irina M. Ovdienko, Oleksandra V. Brukhovetska, Tetiana V. Chausova and Maryna S. Didenko. Professional Self-Realization as a Factor in the Psychological Well-Being of Specialists of Caring Professions - *Pages 548-559* DOI: <https://doi.org/10.6000/2292-2598.2020.08.03.32>

<sup>7</sup> Vavryniv O. S., & Yaremko R. Ya. (2022). Empathy as a factor in the development of personal components of future rescuers’ professional self-realization. Insight: the psychological dimensions of society, 8, 56-69. DOI: 10.32999/2663-970X/2022-8-5

<sup>8</sup> Prykhodko, I., Yurieva, N., Timchenko, O., Fomenko, K., Kernickyi, O., Tovma, M., & Kostikova, I. (2020). What Motivates Ukrainian Women to Choose a Military Service in Warfare?. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 11(3), 36-53. <https://doi.org/10.18662/brain/11.3/108>

### Methods and Research Sample.

In accordance with the research tasks and the specifics of the future fire safety specialists professional activity, we have selected the following psychodiagnostic research tools: the “Forecast” method (assessment of neuropsychological stability (NPS)), the “SACS” method (S. Hobfoll, adapted by N. Vodopianova, O. Starchenkova), the FPI Multifactor Personality Inventory, the Compass methodology, the Diagnosis of Risk Readiness (A. Schubert), the Determination of Life Goals and Values methodology by P. Ivanov and E. Kolobova, the Study of Motivational Profile of Personality methodology by S. Ritchie and P. Martin, and the Diagnosis of Empathic Abilities methodology (V. Boiko). The psychophysiological state was also measured on the basis of the Psychological Training Ground complex and the average score in specialized disciplines was used. 264 cadets in age from 20 to 22 years who studied at the specialty 261 “Fire Safety” at Lviv State University of Life Safety participated in the experiment.

### Results.

The obtained results were processed using content analysis and coefficient of the rank correlation (with the non-parametric Spearman’s test).

The research based on K. Havrylova’s “Type and Lever of Professional Self-Realization” methodology allowed us to ascertain that the surveyed cadets have the least pronounced lever of self-realization in the life and values sense. They are only 13, 2%. Such results may suggest that these cadets are only future fire safety professionals. The author of the methodology says that due to her own research, this level is rarely observed even among professionals. A higher percentage is among cadets with a primitive-executive lever – 19, 1%. A significant number of the cadets, as revealed during interviews, enrolled in the program due to family traditions, as their parents and even grandparents worked in fire safety. However, a substantial number of such cadets successfully realize themselves in the profession and rise to higher levels of professional self-realization. A level of individual-executive professional self-realization was found in 32.3% of the surveyed individuals. The level of realizing norms and roles was established in 35.4% of the cadets.

Additionally, using K. Havrylova’s “Type and Level of Professional Self-Realization” methodology, we identified professional self-realization types (Table. 1).

*Table 1.*

**The results of the research according to the method “Type and Level of Professional Self-realization” by K. Havrylova**

<b>Types of professional self-realization</b>	<b>M</b>	<b>SD</b>
Successful professional self-realization	25,2	2,03
Predicted successful professional self-realization	28,3	2,09

False professional self-realization	21,9	1,65
Predictably false professional self-realization	20,3	1,61
Romantic professional self-realization	26,9	1,81
Non-reflective professional self-realization	18,8	1,45
Formal performance of activities	22,4	1,78

Note: M is for arithmetic mean; SD is for mean squared deviation.

From Table 1, we can see that the type of predicted successful self-realization is most vividly revealed. This result is natural, as the cadets have not yet fully realized their profession and continue their studies. Presumably, cadets with increased indicators of this type have every chance to successfully realize themselves professionally in the future. They need time to study their professional activity in more details, to acquire professional skills at the workplace, to realize the value of their own professional activity, and the motivation to properly direct their own energy for successful professionalization and obtaining a career status.

The empathy role in personal development has long been the scientific research subject. Therefore, the empathy study should be added to the study of professional self-realization among helping professions representatives, which include rescuers.

Summarizing the above, we conducted a study using V. Boiko's "Diagnostics of the Level of Empathic Abilities" method, and it was established that the examined fire safety specialists mostly had demonstrated increased empathy levels. The cadets who were found to have a low empathy level had their scores distributed along the upper limit, that is close to the average level. This indicates the potential for the empathy development under favorable conditions. The research results according to "Diagnosis of the Level of Empathic Abilities" method by V. Boiko are presented in Table 2.

*Table 2.*

**The results of the research according to "Diagnostics of the Level of Empathic Abilities" method by V. Boiko**

<b>Levels of empathy</b>	<b>M</b>	<b>SD</b>
High level	31,2	1,92
Medium level	20,6	1,72
Low level	14,3	2,1

Note: M is for arithmetic mean; SD is for mean squared deviation.

One of the leading places in the personality structure among fire safety specialists is performed by motivation. That is why motivation will guide their desire for professional development. The motivational process of deepening into the

profession is primarily accompanied by the motives formation for professional activity, the essence of which is the possibilities disclosure for this profession to meet the employee needs in specific forms.

We studied the motivational profile that manifests itself in a certain need according to the method “Study of the Personality Motivational Profile” by Sh. Ritchie and P. Martin. The results are presented in Table 3.

*Table 3*  
**Results of the study according to the method “Study of the Personality Motivational Profile” by S. Ritchie and P. Martin**

<b>Scales of needs</b>	<b>M</b>	<b>SD</b>
Need for high salary	53,27	1,71
Need for good working conditions	42,22	1,53
The need for a clear work structure	60,23	2,11
The need for social contacts	49,12	1,72
The need to form strong relationships	47,91	1,69
Need for recognition from other people	64,38	2,31
Need to set challenging goals and achieve them	58,22	1,97
Need to manage	41,11	1,49
Need for feelings variety	43,61	1,65
Need to be creative	46,32	1,67
Need for improvement, growth and development	55,61	2,11
Need to be in demand	51,51	2,01

Note: M is for arithmetic mean; SD is for mean squared deviation.

The future rescuers under study are most eager to be recognized by other people, need clear structure in their work, want to be needed and strive to develop and improve, and need high financial support for their professional activities. If a person feels strong, free, competent, and independent, he or she walks confidently through life. If their necessities are not satisfied, they feel weak, helpless, and incapable of doing anything. In such circumstances, they lose their taste for life, lose confidence in themselves, and become depressed, which can lead to health and mental problems.

Among the life goals and values of the studied cadets, democracy, openness, financial security, leadership, influence, health, personal development, attachment, and love dominate. Also, the goal of the study is safety and security, which can explain their chosen profession. They are aware of the need to feel safe, and this awareness is likely to contribute to excellent learning and subsequently to professional self-realization.

The results of the research on goals and values are presented in Table 4.

*Table 4.*  
**Results of the according to method “Determination of Personality Life Goals and Values” by P. Ivanov**

<b>Goals and values</b>	<b>M</b>	<b>SD</b>
Freedom, openness and democracy	3,4	2,19
Safety and security	5,6	2,17
Serving people	11,1	1,89
Power and influence	10,1	2,01
Popularity	11,9	1,87
Autonomy	14,5	1,58
Financial support	8,3	2,12
Spiritual culture	14,7	1,55
Personal development	10,8	1,91
Health	7,3	2,06
Attachment and love	12,2	1,81
Attractiveness	12,6	1,76
Feeling of satisfaction	13,3	1,71
Interpersonal relationships	13,7	1,67
Spiritual and religious life	14,1	1,61

Note: M is for arithmetic mean; SD is for mean squared deviation.

Willingness to take risks is probably the most important quality in the rescue profession, as they often have to endanger their own health or life to save victims. The cadets we studied are mostly willing to take risks, but a significant number are willing to take risks “wisely” and under certain conditions. That is, they will not take impulsive actions when rescuing victims, but will consciously, carefully and coherently fulfil their professional duty. That is why, in order to determine the level of risk readiness of future fire safety specialists, we conducted an empirical study using A. Schubert’s method “Diagnosing the Level of Risk Readiness”.

Table 5 shows the results of the study using the method “Diagnosing the Level of Risk Readiness” by A. Schubert.

*Table 5.*  
**Results of the research according to method “Diagnosing the Level of Risk Readiness” by A. Schubert**

<b>Value of risk readiness</b>	<b>M</b>	<b>SD</b>
Excessively cautious	41,3	1,81
Average score	35,1	2,11
Ready to take risks	20,1	1,65

Note: M is for arithmetic mean; SD is for mean squared deviation.



The ability to apply effective learning strategies increases a person's adaptation to a wide variety of life and professional situations. In extreme situations and situations of uncertainty, lack of information and time, in which rescuers often work, the use of appropriate learning strategies helps to maintain calmness, well-being and is the key to effective rescue actions.

Table 6 shows the results of the study according to S. Hobfoll's SACS methodology.

*Table 6.*  
**The results of the research using the "SACS" method by S. Hobfoll**

<b>Behavior strategies</b>	<b>M</b>	<b>SD</b>
Assertive actions	41,3	3,21
Search of social support	20,1	2,11
Maintaining social contact	22,1	2,41
Careful actions	34,3	3,09
Impulsive actions	24,3	2,57
Avoiding	20,2	2,17
Manipulative actions	31,2	2,87
Antisocial actions	19,5	1,88
Aggressive actions	33,2	3,01

Note: M is for arithmetic mean; SD is for mean squared deviation.

Most often, cadets under research perform assertive, limited, impulsive and aggressive actions. Such results allow us to say, that while performing professional duties, such cadets will be guided by the knowledge and skills acquired during the training period. They will carry out logical analysis of the circumstances; they will look for optimal ways to save the victims. However, sometimes such cadets may deny or downplay the threat and act impulsively.

Low indexes in searching and establishing social contact are explained by the fact that the rescuer does not have the opportunity to establish social ties while performing emergency rescue actions. Rescuers interact with their surrounding only when it is necessary. Person usually has different motives in establishing social contact, in particular – realize your place in the system of relationships, receive moral support, reduce the level of self-doubt, achieve attention and approval from others, form positive attitude towards yourself, influence others and much more.

The level of neuropsychological stability will be an important indicator in rescuers professionalization, because it will contribute to or destabilize the rescuer during combat missions. Almost on every shift rescuer sees frightening sights: traumatized victims and colleagues, death of colleagues or victims (death of kids is

perceived the hardest, which rescuers mention repeatedly), lost property, etc.

The results of research using “Prognosis” method are shown in detail in table 7.

*Table 7.*  
**The results of research using “Prognosis” method**

<b>The level of neuropsychological stability</b>	<b>M</b>	<b>SD</b>
High level	33,6	1,88
Normal level	27,3	1,82
Satisfactory level	20,4	1,65
Low level	10,2	1,39

Note: M – arithmetic mean; SD – mean square deviation

Thus, neuropsychological stability is more in character largely for persons who are almost not prone to anxiety. Such fire safety experts are more rational; thus, they could overcome such stressful situations with lower level of emotional tension. They are characterized by higher mobility of mental processes, which indicates greater possibilities of adaptation.

Fire safety specialists often have to use the method of visual reconnaissance when carrying out emergency and rescue operations. This method of conducting a search is used to inspect unfamiliar, smoky, open or cluttered spaces. It is carried out with help of special tools; they punch holes of small diameter, using narrow slits, etc. They have to understand how to work and where to move further to carry out effective emergency and rescue operations. Such requirements led to research in level of spatial conception.

The results of the research using the “Compass” method demonstrate following results. Half of the studied future fire safety specialists have a high level of development of spatial conception, namely 49,2%. The average level of development of spatial concept was found at 29,3%, and the low level at 21,5% is low.

Measurements of the psychophysiological state were also carried out after passing the educational training in “Psychological Training Complex”. Values calm, collected, facial expressions are confident, breathing is even, facial color is normal, perfectly coordinated, precise and light movements are found in 36,9% of studied cadets. Slight excitement, frowning forehead, pursed lips, breathing is somewhat accelerated, but rhythmic in 22.3%. Slight redness (paleness) of the skin, movements are quite coordinated, but with some effort, a slight tremor of the fingers is observed in 20.5% of the respondents. Moderate excitement, tense jaws, accelerated and non-rhythmic breathing, pronounced redness or paleness of the face, light sweating, moderately tense movements, some clumsiness, tremors of fingers were found in 17.3% of future fire safety specialists. Only 3% showed strong excitement, clenched teeth, noticeable asymmetry of facial expressions,

sharp increase in breathing, face covered with spots and significant sweating, pronounced stiffness, movements not commensurate with effort, noticeable hand tremors, and fussiness. Such psychophysiological reactions will not allow emergency rescue operations to be carried out to the full extent, and will also expose the lives of both the victims and the rescuers to danger. The rapid development of modern society, science, and technology sharply increases the risk of large-scale disasters and accidents.

Analyzing the average score of the studied cadets, we can say that most of them have mastered their studies well in their specialty. After all, an average score of 5.0-4.1 was found in 29.5% of the subjects, an average score of 4.0-3.1 in 38.3%, and 32.2% have an average score of 3.0 and below.

Personal attributes and qualities were investigated by us using the “FPI (Freiburg Personality Inventory)” questionnaire. Based on the results of the research, we can see that the studied cadets - future fire safety specialists are mostly characterized as balanced, extroverted, communicative and open, most respondents have inherent masculinity. Detailed results of the study of personal properties and qualities according to the “FPI (Freiburg Personality Inventory)” questionnaire are presented in Table 7.

*Table 7.*  
**The results according to the “FPI (Freiburg Personality Inventory)” survey**

<b>№</b>	<b>Options</b>	<b>% from the total sample</b>
1.	Neuroticism	10,1
2.	Spontaneous aggressiveness	16
3.	Depressivity	11,9
4.	Irritability	20,2
5.	Sociability	66,5
6.	Balance	71,4
7.	Reactive aggressiveness	14,9
8.	Shyness	16,8
9.	Openness	69,2
10.	Extraversion	60,1
11.	Introversion	39,9
12.	Emotional lability	12
13.	Femininity	28,3

14.	Masculinity	71,7
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Detecting the relationship between two or more data sets is one of the most important tasks of psychological research. To identify the relationship between research data, correlation analysis is most often used in psychology. Correlation analysis is used to identify the statistical relationship between the variables under study, and based on the identified intercorrelations, a psychological prediction is made. Correlation analysis is designed to assess the significance, shape, and closeness of relationships between the studied attributes or factors. Therefore, we decided to conduct a correlation analysis of the empirical data obtained as a result of the study.

Based on the correlation analysis, we determined the internal relations nature of future fire safety specialists professional self-realization. When analyzing the results, we took into account the connections at the 5% and 0.1% levels of significance.

The primitive-executive level connections of professional self-realization were found with such indicators as indicators of power and influence ( $r=0.483$ ,  $p\leq 0.05$ ); material support ( $r=0.471$ ,  $p\leq 0.01$ ); attractiveness ( $r=0.631$ ,  $p\leq 0.01$ ); risk-taking ( $r=0.473$ ,  $p\leq 0.05$ ); avoidance ( $r=0.572$ ,  $p\leq 0.01$ ); manipulative actions ( $r=0.493$ ,  $p\leq 0.05$ ); favourable neuropsychological stability prognosis ( $r=0.542$ ,  $p\leq 0.05$ ); need for high salary ( $r=0.492$ ,  $p\leq 0.05$ ); need to manage ( $r=0.652$ ,  $p\leq 0.01$ ); need to set challenging goals and achieve them ( $r=-0.481$ ,  $p\leq 0.05$ ); mild skin redness (pallor), movement coordination, but with some effort, slight fingers tremor ( $r=0.547$ ,  $p\leq 0.05$ ); average academic scores 4.0-3.1 ( $r=0.469$ ,  $p\leq 0.05$ ) and at the level 3.0 and below ( $r=0.522$ ,  $p\leq 0.05$ ); reactive aggressiveness ( $r=0.458$ ,  $p\leq 0.01$ ).

In the future, such cadets are mostly ready to use their own opportunities to demonstrate power and influence other people through their own status, threats or manipulation. Therefore, it is important for them to keep power in their hands. They are quite ambitious in their own plans, have a high need to achieve their own goals and realize their plans. The material status of themselves and others is important to them; they strive for high salaries, but perform their work at a rather low professional level. They are not sure of the right choice of profession. The low level of professional training is demonstrated by average and below average academic grades, as well as unsatisfactory results of psychological training. When they are unable to demonstrate their own strength, manipulate or control others, they react with conflict, aggression, threats, and insults.

Relationships of the individual-performance level of professional self-realization were found with such indicators as safety and security ( $0.478^*$ ,  $p\leq 0.05$ ); power and influence ( $0.521^*$ ,  $p\leq 0.05$ ); autonomy ( $-0.531^*$ ,  $p\leq 0.05$ ); too cautious ( $0.487^*$ ,  $p\leq 0.05$ ); search for social support ( $0.523^*$ ,  $p\leq 0.05$ ); avoidance ( $0.566^{**}$ ,  $p\leq 0.01$ ); favorable outlook ( $0.542^*$ ,  $p\leq 0.05$ ); need for clear work structuring ( $0.583^{**}$ ,  $p\leq 0.01$ ); need for social contacts ( $0.498^*$ ,  $p\leq 0.05$ ); slight skin redness (pallor); movements are quite coordinated, but with some effort. slight

fingers tremor (0.554\*\*,  $p \leq 0.01$ ); average score 4.0-3.1 (0.532\*,  $p \leq 0.05$ ); shyness (0.435\*,  $p \leq 0.05$ ); empathy average level (0.497\*,  $p \leq 0.05$ ); spatial representations average level (0.547\*,  $p \leq 0.05$ ).

Future fire safety specialists also tend to be good at power and influence. The average level of spatial representations and a favourable prognosis of neuropsychological stability allows them to realize themselves in their future profession. Avoidance or inability to make a decision in an extreme situation can cost the lives of victims or colleagues. Therefore, they need a clear structuring of their work, clear guidelines and regulation. Often, such cadets will demonstrate professional uncertainty or incompetence during rescue operations. They also have difficulty making independent decisions and performing professional tasks, and their professional position depends on the significance of the situation for them. They are characterized by great energy and perseverance, but tend to identify with the group, thereby submitting to it and its rules and norms, often putting their own goals aside.

Connections of the norms and roles realization level were found with the following indicators: serving people (0.532\*,  $p \leq 0.05$ ); attractiveness (0.524\*,  $p \leq 0.05$ ); interpersonal relationships (0.564\*\*,  $p \leq 0.01$ ); average value (0.572\*\*,  $p \leq 0.01$ ); search for social support (0.559\*\*,  $p \leq 0.01$ ); very favourable prognosis (0.537\*,  $p \leq 0.05$ ); favourable prognosis (0.557\*\*,  $p \leq 0.01$ ); need for social contacts (0.597\*\*,  $p \leq 0.01$ ); need for recognition from other people (0.485\*,  $p \leq 0.05$ ); slight anxiety, frown, tight lips, somewhat rapid but rhythmic breathing (0.495\*,  $p \leq 0.05$ ); slight skin redness (pallor); movements are quite coordinated, but with some effort, slight fingers tremor (0.532\*,  $p \leq 0.05$ ); average score 5.0-4.1 (0.514\*,  $p \leq 0.05$ ); average score 4.0-3.1 (0.458\*,  $p \leq 0.05$ ); average level of empathy (0.482\*,  $p \leq 0.05$ ); average level of spatial representations (0.568\*\*,  $p \leq 0.01$ ).

Cadets with high level of norms and roles realisation in professional self-realization, realizing the importance of their profession, tend to serve and help people. However, the average indicators of risk-taking suggest that they will take risks only when necessary, after weighing the pros and cons. High and average academic scores indicate that they have good professional training, which will contribute to positive professional self-realization in the future. Such cadets actively express themselves in their educational and professional activities, and are passionate about the process and results of their work in industrial practices. The ability to empathize is the ability to provide an emotional response to the experiences, thoughts and feelings of the object of empathy. The problem of empathy also calls for the need to distinguish various forms of helping behaviour, including prosaically, altruistic, and helping actions. Thus, we can assume that it is the ability to empathize that will motivate people to help victims.

Connections of life-sense and value realization were found with such indicators as freedom, openness and democracy (0.761\*\*,  $p \leq 0.01$ ); serving the people (0.787\*\*,  $p \leq 0.01$ ); material support (0.542\*,  $p \leq 0.05$ ); personal growth (0.554\*\*,  $p \leq 0.01$ ); feeling of satisfaction (0.671\*\*,  $p \leq 0.01$ ); willingness to take risk (0.687\*\*,  $p \leq 0.01$ ); assertive actions (0.587\*\*,  $p \leq 0.01$ ); establishing social contact (0.481\*,  $p \leq 0.05$ ); cautious actions (-0.587\*\*,  $p \leq 0.01$ ); very favorable outlook

(0.423\*,  $p \leq 0.05$ ); need for high salary (0.639\*\*,  $p \leq 0.01$ ); need for good working conditions (0.611\*\*,  $p \leq 0.01$ ); need for recognition from other people (0.547\*,  $p \leq 0.01$ ); need to set challenging goals and achieve them (0.672\*\*,  $p \leq 0.01$ ); need for improvement, growth and development (0.634\*\*,  $p \leq 0.01$ ); calm, focused, confident facial expressions, smooth breathing, normal complexion, perfectly coordinated, precise and light movements (0.498\*,  $p \leq 0.05$ ); slight excitement, frowned forehead, compressed lips, breathing is slightly rapid, but rhythmic (0.467\*,  $p \leq 0.05$ ); average score 5.0-4.1 (0.673\*\*,  $p \leq 0.01$ ); average score 4.0-3.1 (0.569\*\*,  $p \leq 0.01$ ); spontaneous aggressiveness (0.512\*,  $p \leq 0.05$ ); composure (0.521\*,  $p \leq 0.05$ ); empathy high level (0.651\*\*,  $p \leq 0.01$ ); empathy average level (0.523\*,  $p \leq 0.05$ ); spatial representations high level (0.659\*\*,  $p \leq 0.01$ ).

Future fire safety specialists with revealed level of life-sense and value realization in professional self-realization strive for democracy and free expression of will, but this is not always realistic in the conditions of military service, because the military charter regulates their activities. These professionals take pleasure in learning and strive not only for successful professional self-realization, but also for personal development, as they have the need for improvement, growth and development. They easily establish social contacts and need to be recognized by other people. They demonstrate assertiveness and composure, but sometimes they show some aggressiveness in situations that make it impossible to carry out effective emergency rescue actions. The positive correlation relationships of the level of life-sense and value realization in professional self-realization with high and medium levels of empathy are not accidental. Because empathy, as a social and psychological phenomenon, has a significant impact on the personality in general, increases motivation, productivity and efficiency of its activities.

## **Conclusions**

The professional self-realization of future fire safety specialists is appropriate to consider as a functional system that includes the professionally important qualities formation, clear methods and means of implementation in professional activities, a determined nature of motives, goals, value orientations and conditions of professional development, the harassment level, attitude to the profession, the desire to master professional knowledge, skills, professional orientation and competence, self-control; afterwards the professional knowledge implementation, skills and abilities, the degree of professional activity effectiveness. It has been empirically established that cadets striving professional self-realization have a need for material security, personal growth, strive for a satisfaction, sense are prone to risk-taking and assertive actions, easily establish social contacts, and have a need to set and achieve challenging goals, growth and development.

The study does not exhaust all aspects of the problem. We consider it promising to study the psychological mechanisms and factors of professional self-realization among other risky professions representatives, as well as to develop a comprehensive socio-psychological program for the professional self-realization development among future rescuers and other risky professions representatives.

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