

Article

Students' subjective perceptions of extremism in the Russian Arctic

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Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/by/4.0/ **Abstract:** Young people are a traditional risk group for radicalization and involvement in protest and extremist activities. The relevance of this topic is due to the growing threat of youth radicalization, the expansion of the activities of extremist organizations, and the need to organize high-quality preventive work in educational organizations at various levels. The article provides an overview of research on the topic under consideration and also presents the results of a series of surveys in general educational institutions and organizations of secondary vocational education (n = 11,052), universities (n = 3966) located in the Arctic zone of the Russian Federation. The results of the study on aspects of students' ideas about extremism are presented in terms of assessing their own knowledge about extremism, the presence/absence of radically minded people around them, determining the degree of threat from the activities of extremist groups for themselves and their social environment, and identifying approaches to preventing the growth of extremism in society. Conclusions are drawn about the need to improve preventive work models in educational organizations towards a targeted (group) approach.

Keywords: subjective perceptions; students; educational organizations; extremism; Arctic region; methods of statistical data analysis

1. Introduction

Extremism is one of the global problems of our time, becoming a threat to stability for the global world (Lyzhin et al., 2021). Understanding, predicting and preventing extremism, especially in the context of violence, is one of the challenges facing humanity (Gelfand et al., 2013). In connection with the actualization of the problem, states are forced to strengthen international cooperation and develop a set of measures to prevent extremism, adopt certain directions and strategies of state policy in this area (Alava et al., 2017; Kirsanova and Lenkovets, 2022; Litvinenko et al., 2022).

According to the Federal Bureau of Investigation, in the USA hate crimes are up in 2021–2022 by 7.2% (FBI Releases, 2022). The annual OSCE Hate Crime Data report shows an increase in incidents between 2021 in 44 countries and 2022 in 46 countries from 6391 to 8106 incidents, or 26.8% (OSCE-ODIHR, 2022). In Russia, over the same period, the number of registered extremist crimes increased by 48%, from 1057 to 1566 (Information and Analytical Portal, 2022).

In relation to this study, the concept of extremism or extremist activity is considered as the theory and/or practice of achieving socio-political, religious, and national goals through actions that violate current national legislation, including through violence and violation of human rights and freedoms.

Young people, especially teenagers have an increased susceptibility to destructive and extremist ideas (Heinke and Persson., 2016) due to age, sociopolitical and personal characteristics, and a propensity to take risks and solve emerging problems using radical methods (Bakovsky et al., 2020; Kukharova et al., 2021). The limited ability to analyze different belief systems and the tendency to see in black banners and white script contribute to the fact that "radical ideology does not seem radical at all" (Samuel, 2018). This circumstance partly explains why educational institutions and their students attract the attention of terrorists and extremists as a potential source of recruitment and support.

On the one hand, young people need socio-cultural identification, which determines the need to form moral guidelines and generally accepted values. The interaction between universities and employers can help in the formation of these guidelines (Fadeev et al., 2022; Kovalenko et al., 2019; Lvov et al., 2019). Students' satisfaction with the learning process and acquired competencies is of no small importance (Katuntsov et al., 2017; Ponomarenko et al., 2019; Vasilev et al., 2024). In the context of information and digital transformation of society, the associated socio-economic risks and challenges are increasing (Fadeev et al., 2022; Nikiforova et al., 2020; Nevskaya et al., 2024). In the event of a gap between the "ideal" and the "real," value transformations are activated, which, coupled with difficulties in identity and self-determination, determines a high susceptibility to extremism. Extremism is the result of a motivational imbalance in which the need for personal significance "crowds out" other needs and frees behavior from constraints (Kruglanski et al., 2019). Personal uncertainty, the desire to identify with a group that provides them with clear norms and values, can be a factor in radicalization (Crosby, 1976). Destructive communities are able to provide its members with a strong sense of belonging to the community, fulfilling a basic need of the individual (Baumeister and Leary, 1995). At the same time, alignment with the spiritual and authentic self; community, interconnectedness and service; maintaining diversity and pluralism are necessary conditions for preparing young people to create and maintain a harmonious, participatory civil society (Mayseless and Kizel, 2022).

On the other hand, the danger of escalating extremist tendencies among young people lies in the possibility of their transformation into more radical forms, including terrorist activities (Smith, 2018), which in the future could lead to destabilization of the socio-political situation (Kirsanova et al., 2021; Lapinskas, 2023) at various levels and have a negative impact on ensuring national security in general. The problem of terrorism is also a risk for the Arctic, since active industrial development of its mineral resource base is currently underway (Cherepovitsyn and Tretyakov, 2023; Matrokhina et al., 2023; Stroykov et al., 2021), and it also correlates with the training of young personnel for the Arctic regions (Chanysheva et al., 2021; Chanysheva et al., 2019; Fadeev et al., 2022; Simonchuk and Nikulina, 2020).

Extremism threatens the integrity of society and the unity of the state; it is developing dynamically, and its outbreaks are quite unexpected (Starostenko and Kartashov, 2014). The strengthening of youth radicalization is facilitated by both objective circumstances associated with crisis phenomena in socio-economic life (Desmarais et al., 2017) and subjective ones associated with individualism and identity gaps (Beršnak and Prezelj, 2021).

Research into the subjective perceptions of students in educational institutions about extremism has been carried out since the beginning of the 21st century, which correlates with the growing threat of radicalization among young people. **Table 1** shows examples of studies devoted to identifying the ideas of students in educational institutions about extremism.

Table 1. Examples of studies of students' subjective ideas about extremism.

Location	Study coverage	Research method(s)	Research tools		
Ivanovo State Energy University (Russia) (Lisova and Kryukova, 2021)	133 students	Survey, free association method	Authorial questionary		
Tula State Lev Tolstoy Pedagogical University (Russia) (Krayushkina and Volodin, 2019)	667 students	Survey	Authorial questionary		
Leningrad Regional Institute for Educational Development (Russia) (Eslikova et al., 2019)	2130 respondents 16–30 years old, of which 2014 were Survey of		Semi-standardized ethno- consulting questionnaire "Causes of the emergence of extremist manifestations"		
Tomsk (Russia) (Meshcheryakova et al., 2018)	145 students in 2014 and 169 students in 2018	Comparative analysis of socio-psychological research. Psychodiagnostics	Written Association Method		
Kaluga State University named after Tsiolkovski (Russia) (Bogdanov et al., 2017)	848 students	Survey	Authorial questionary		
Universities of Minsk (Republic of Belarus) and St. Petersburg (Russia) (Deyneka et al., 2016)	126 students	Survey, psychodiagnostics	Authorial multifactorial questionnaire "Psychological preconditions of extremism", test for ranking values (methodology by Rokeach adapted by Yadov)		
Tomsk State University, Ural State Medical University, St. Petersburg State University (Russia) (Bocharov et al., 2015)	185 students Survey, psychodiagnostics		Authorial questionary; "Mini-Mult" questionnaire; B. Sheldon's personality self- determination test in adaptation and modification by E. N. Osin; methodology "Diagnostics of the motivational structure of personality" by V. E. Milman; "Cultural-value differential" technique		
Samara Institute – Higher School of Privatization and Entrepreneurship (Russia) (Kornilova, 2011)	1206 respondents (high school students, students, working youth)	Survey, psychodiagnostics	Proprietary technology		
Barnaul (Russia) (Krayushkina and Volodin, 2019)	128 students	Survey. Methods of statistical data analysis	Modified questionnaire by V. S. Sobkin, A. A. Mkrtichyan to identify attitudes towards extremism		

Table 1. (Continued).

Location	Study coverage	Research method(s)	Research tools	
Trans-Baikal Territory, Tula and Smolensk regions (Russia) (Fedotova, 2021)	4873 students of general education institutions	Survey	Authorial questionary	
Umm al-Qura University (Kingdom of Saudi Arabia) (Al-Mfarriji, 2021)	321 students Survey		Abdullah et al. Scale of attitude towards extremism Abdul Majeed E. M. Scale of attitudes towards religious and social extremism Akers et al. Thinking Styles Scale	
Norway (Haugstvedt and Bjørgo, 2022)	2588 respondents	Survey	Authorial questionary	
Bangladesh (Bhulai, 2017)	200 students	Survey	Proprietary technology	
University of Dhaka in Bangladesh (Dhali, 2022)	104 students 26 students 14 students	Discussion sessions. Focus groups. In-depth interviews	Proprietary technology	
Muhammadiyah University of Yogyakarta (Indonesian) (Aziz and Tago, 2023)	156 students	Experimental methodology (survey-information-repeated survey)	Authorial questionary	

Source: Compiled by the authors.

The results of a survey conducted at the Tula State Lev Tolstoy Pedagogical University (Russia) have been summarized. The sample consisted of 667 students—almost 12% of all students at the time of the study. The results demonstrate that 94% of university students are aware of extremism (choice options: "I know"/"I would rather know"). At the same time, 72.6% of respondents do not encounter extremism in everyday life, 12% encountered it several times, and 2.4% encountered it quite often. Noteworthy is the fact that about 30% of respondents noted their own distrust of any information source. Two-thirds of respondents have a negative attitude towards extremists, while almost half are ready to cooperate with law enforcement agencies. Respondents consider extremism, first of all, as inciting interreligious, ethnic and other hatred, the spread of nationalist, chauvinist, left-wing radical, racist, and fascist views (Krayushkina and Volodin, 2019).

The results of a study conducted among students of the Altai Territory (Russia) are interesting. Despite the relatively small sample size (128 respondents), the data show that only 66.67% note the inadmissibility of justifying extremist activity. 13.89% indicate that it is admissible to justify any manifestation of extremism; a similar percentage of respondents highlight this possibility for some manifestations of extremism. A little more than 5% find it difficult to answer. It should also be noted that almost 9% rather approve of the actions of extremist organizations, almost 3% approve. More than a third encountered extremism in everyday life several times or occasionally. 46.42% of the students are of the opinion that the solution to the problem of extremism is in the hands of the population and only secondarily depends on the authorities and law enforcement agencies. Regarding aspects of prevention, 70.58% of respondents were supporters of radical methods, 29.42% called for turning to the experience of foreign countries (Kashirsky and Sabelnikova, 2014).

A pilot study based at Ivanovo State Energy University (Russia) shows (the sample included 133 students) the presence of respondents who are ready to justify extremist activities (12.3%). The results demonstrate the so-called passive response

of respondents to issues of extremism. The causes of extremism are associated with incitement of nationalist aggression, deformation of the value system, and low legal culture of the population. At the same time, only 72.6% of respondents have a general understanding of extremism. It is noteworthy that the category "extremism" is not fully formed: it is translated through the categories of violence, terrorism, and aggression (Lisova and Kryukova, 2021).

The results of a study based on Kaluga State University named after Tsiolkovski (Russia) revealed that students' awareness of extremism is quite high: 78% were familiar with extremism through the Internet and the media, 8% encountered manifestations of extremism in real life. Ideas about manifestations of extremism are very variable: for example, taking hostages to achieve goals (16%), holding violent protests (14%), and promoting fascism (13%). At the same time, 17.2% and 6.4% of respondents, respectively, chose the answer "rather no than yes" and "yes"/"rather yes" when asked about their readiness to disseminate information that could harm the state for financial reward. Only 43% are ready to counter extremist activities, 23% of respondents follow the logic of communication with extremists, more than 40% find it difficult to answer or choose inaction (Bogdanov et al., 2017).

Data from a survey of students from 42 high schools (Videregående skoler) and 28 different youth support programs in Norway (total number of respondents was 2588 people) provide insight into the assessment of the severity of the problem of various types of extremism over the past 3 years (Haugstvedt and Bjørgo, 2022). According to the data presented, "to some extent", "to a large extent" and "to a very large extent" a total of 48.5% of respondents identified right-wing extremism as a problem, 34.4%—Islamist, 19.4%—left-wing, and others forms of extremism (17.9%). At the same time, more than half of the youth (53%) are categorically not ready to justify the use of violence to attract attention to a problem or achieve changes in society, 19.8% of respondents believe that it can be justified to a small extent, 12.6%—to some extent, 5.5%—to a significant or very significant extent (Haugstvedt and Bjørgo, 2022). Statistical data analysis methods are aimed at analyzing and identifying patterns by testing hypotheses and making forecasts (Banikevich et al., 2024; Bykowa et al., 2024).

In order to conduct an in-depth analysis of various aspects of the perception of extremism among young people, studies identify individual groups of them. It should be noted that an interesting attempt was made to cluster a sample of respondents into three groups: those with a mixed and uncertain position, those prone to chauvinism and extremism, and those prone to tolerance. The second cluster is characterized by chauvinist attitudes, justification of extremist actions in the presence of public benefit, and the presence of negative feelings towards migrants and representatives of other nationalities (Bocharov et al., 2015). Kornilova and her colleagues divided group of respondents into four categories: psychologically adapted students, high school students, working youth, and marginal students. The latter include students with a high level of feelings of loneliness and experiencing difficulties in sociopsychological adaptation (Kornilova, 2011). Researchers Haugstvedt and Bjørgo classified Norwegian respondents into two groups: a) those who believe that the use of violence to a large or very large extent can be justified to attract attention to an

issue or achieve change in society; b) and those who believe that it can be justified to a lesser or no extent. They conducted a statistical analysis of survey data on factors such as gender, family background, trust, social support, perceived discrimination, drug use, contact with the police, region and religion (Haugstvedt and Bjørgo, 2022).

In a study among students in Saudi Arabia (Al-Mfarriji, 2021), in addition to studying the level of attitudes towards extremism among students, its differences depending on academic specialization, year of study and educational achievements were analyzed. The author found differences between the average scores of the study sample in relation to extremism depending on the academic year in favor of fourth-year students. No relationship was found between average scores regarding extremism and such variables as educational achievements and academic specialization.

The given examples of research provide general information about the subjective ideas of students in educational organizations about extremism, but they are very limited in a number of research questions.

- 1) The results due to the relatively small sample are actually applicable only to the educational organization as the basis for the research, and their extrapolation to students as a whole is incorrect, since in this case the sample will not be representative. We also note the lack of research among students in general education and professional educational organizations. In fact, they are not differentiated into a separate group of respondents; data showing the absence/presence of statistically significant dependencies on the level of education is not provided.
- 2) The main method used in research to identify students' subjective ideas about extremism is a survey, which is implemented using the authorial semi-standardized questionnaire with a sample population of less than 200 respondents. At the same time, it is a survey with minimal sampling error and sufficient coverage of respondents in the group of interest that allows us to present the general picture of the situation.
- 3) Research provides a statement of facts regarding the subjective perceptions of students in educational organizations about extremism, but the statistical dependencies between individual indicators are not sufficiently demonstrated, which, in turn, limits the preparation of methodological recommendations for improving work with students at the level of prevention, intervention and post-intervention.
- 4) Literature review reveals research deficit on the presence/absence of statistically significant differences between the subjective views of university students, students of general education and secondary professional organizations about extremism. It is noted that in order to strengthen the role of the education system in ensuring the sustainable development of the state, it is recommended to involve not only secondary, but also primary and higher education in political strategies to combat radicalization (Sas et al., 2020).

This study aims to eliminate the above limitations by expanding the general population of the study, covering students of different levels of education, increasing the total volume of the sample population, and analyzing the socially dangerous phenomenon of extremism using statistical methods.

The purpose of this article is to analyze the perception of students at different levels of education of the socially dangerous phenomenon of extremism through knowledge (knowledge about extremism), evaluative (assessment of the degree of threat), social (being surrounded by radically minded people) and preventive (ways to prevent the growth of extremism in society) components.

2. Materials and methods

From 24 November to 16 December 2021, a survey of students enrolled in higher education programs (hereinafter referred to as HE) at the Northern (Arctic) Federal University named after Lomonosov and Northern State Medical University was conducted. The universities are located in Arkhangelsk, which is part of the Arctic zone of the Russian Federation. 4071 respondents (bachelor's, specialist's and master's students of all courses of study) took part in the survey; the sampling error did not exceed 1.53%; after the screening procedure 3966 questionnaires were allowed for analysis.

From 3 October to 15 October 2022, a similar survey among students in grades 9–11 of secondary general education organizations (schools, lyceums, and gymnasiums; hereinafter referred to as educational institutions or SGE) and students of professional educational organizations (technical schools, and colleges; hereinafter referred to as secondary vocational education—SVE) in the Arkhangelsk region was conducted. 11,130 people took part in the study; after the screening procedure 11,052 questionnaires were allowed for analysis. The sampling error did not exceed 1%.

The research was carried out using the survey method (Afanaseva et al., 2023a; Afanaseva et al., 2023b); the tools were presented by the authorial semi-standardized questionnaire, which touched upon aspects of respondents' attitudes towards terrorism, extremism and asked questions about interethnic and interfaith relations among young people and in the region. This article presents the results of a study on certain aspects of students' ideas about extremism in terms of:

- a. respondents' assessments of their own knowledge about extremism;
- b. presence/absence of being surrounded by radical people;
- c. determining by respondents the degree of threat from the activities of extremist groups for themselves and their social environment;
- d. designations of approaches to preventing the growth of extremism in society.

The questionnaire survey was conducted remotely via the Internet in anonymous mode using the online tool Lime Survey. Processing and analysis of the obtained results were carried out in the IBM SPSS Statistics 23.0 program. To analyze the presence/absence of a bivariate relationship between variables, we generated contingency tables with ordinal and nominal data and used Pearson's χ^2 . The applicability of this criterion is determined by the absence of expected frequencies less than 5 in more than 20% of the cells of the resulting tables.

3. Results

3.1. Knowledge about extremism

The assessment by respondents—HE students of their own knowledge about extremism is presented in **Figure 1**. So, 46% defined their knowledge as superficial, 44.8% noted that they are well informed about extremism. However, 5.6% of respondents found it difficult to define extremism, and 3.6% know nothing about it.

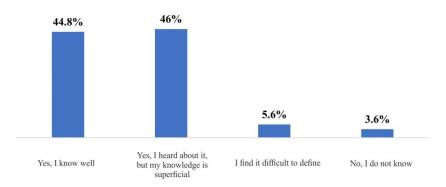


Figure 1. Distribution of answers of respondents in HE institutions to the question "Do you know what extremism is?", in % (N = 3966). Source: compiled by the authors.

In the group of respondents studying in educational institutions of general education and secondary vocational education, knowledge about extremism was assessed in a different way. The question was asked: "What do you understand by extremism? Which point of view is closer to you personally? The majority of respondents define extremism as a negative, criminal phenomenon—45.3% of respondents from students in general education organizations and 38.9% from secondary vocational educational organizations (**Figure 2**). Noteworthy is a statistically significant group of people who were unable to indicate their point of view regarding the issue under consideration: these were 23.9% of students in general education organizations and 26.9% of students in secondary vocational education.

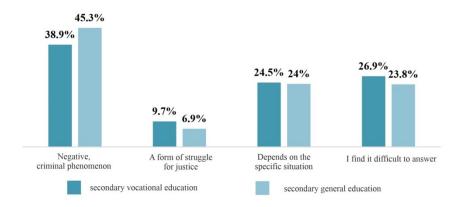


Figure 2. Distribution of respondents' answers to the question "What do you understand by extremism? Which point of view is closer to you personally?", in % (N = 5153 (secondary general education), N = 5899 (secondary vocational education)). Source: Compiled by the authors.

3.2. The presence of radically minded individuals in the environment

It is of interest to consider the results of respondents' answers to the question about the presence/absence of radically minded people around, who can be called extremists. More often, students of secondary vocational education speak about the presence of such persons: 3.7% of respondents reported that radicals are present in the environment and there are many of them, 6.3% indicate the presence of 2–3 people. Among university students, 86.4% do not meet radically minded people around them. The results for the three groups of respondents are presented in **Figure 3**.

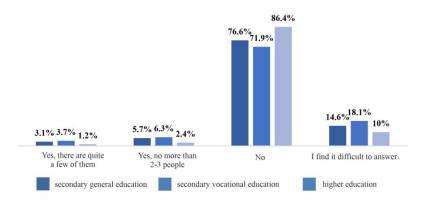


Figure 3. Distribution of respondents' answers to the question "Are there or are not radically minded people in your environment who could be called extremists?", in % (N = 3966 (HE), N = 5153 (secondary general education), N = 5899 (secondary vocational education)). Source: compiled by the authors.

On this issue statistically significant differences were revealed depending on the level of education of the respondent (p = 0.000) (**Table 2**).

Table 2. Chi-square tests for assessing the relationship between respondents' answers to the question "Are there or are not radically minded people in your environment who could be called extremists?" depending on the level of education received by respondents.

	Meaning	Degree of freedom	Asymptotic significance (2-sided)
	-	g	
Pearson's chi-squared test	299.265 ^a	6	0.000
LR	323.354	6	0.000
Linear-by-Linear Association	0.219	1	0.640
Number of valid observations	15,079		

a. For cell count 0 (0.0%), a value less than 5 is assumed. The minimum expected number is 113.10. Source: compiled by the authors.

The main reasons why people join radical, extremist organizations and groups include, according to respondents, a tendency to violence, aggression and rejection of reality, and protest. There are statistically significant differences regarding the definition of these reasons depending on the level of education received by respondents (**Table 3**). Thus, among students of educational institutions of higher education, a specific interpretation of religious teachings is indicated in 44% of cases,

while among students of general educational institutions and secondary vocational education this option does not exceed 20%. In this group, rejection of reality, protest (46.6%), attractiveness of religious and political extremist ideology (34.9%), low level of spirituality, lack of ideals (32%), and low level of education (31%) also stand out significantly. In general, university students consider comprehensively the reasons for people's participation in extremist activities, which can be associated with their socio-psychological characteristics and more mature age, as well as with the implementation of comprehensive preventive activities in educational, extracurricular, and leisure areas (Radushinsky et al., 2024). The level of poverty in the regions of the Arctic zone depends on the average level of income and fiscal capacity. This fact should be reflected in state programs of regional development and state policy (Fadeev and Fadeeva, 2022; Kirsanova et al., 2024; Nechitailo and Marinina, 2022; Radushinsky et al., 2023).

Table 3. Assessment of the relationship between respondents' answers to the question "Tick the reasons that, in your opinion, attract people to join radical, extremist organizations and groups?" depending on the level of education of respondents, in % (the question allowed the choice of several answer options).

Reasons	SGE *, %	SVE **, %	HE ***, %	Pearson's X2 value	h	Asymptotic significance (2-sided)
Idleness, promiscuity	25.5	26.3	21	37.629	2	0.000
Poverty, low standard of living	16.7	27.3	13.3	222.182	2	0.000
Rejection of reality, protest	28.4	27.1	46.6	444.619	2	0.000
Specific interpretation of religious teachings	14.2	14.4	44	1371.552	2	0.000
Lack of opportunities for self-realization	21.2	22.4	25.1	18.462	2	0.000
Low level of spirituality, lack of ideals	23.9	21	32	143.914	2	0.000
Low level of education	16.1	15.2	31	407.119	2	0.000
Tendency to violence, aggression	62.8	56.3	62.2	49.875	2	0.000
The attractiveness of religious and political extremist ideology	17.6	16.7	34.9	500.529	2	0.000
A sense of national identity	7.5	9.8	13.5	83.507	2	0.000
The desire to unite with someone	10.3	11.4	14.1	30.645	2	0.000
I find it difficult to answer	0.9	2.3	2.9	132.278	2	0.000

SGE*- secondary general education; SVE**- secondary vocational education; HE***- higher education. Source: compiled by the authors.

3.3. Threat assessment

Regarding respondents' identification of threats to themselves or their family members associated with the activities of radical, extremist organizations and groups, it should be noted that there are great fears for their lives and the health of their loved ones among vocational education students (43%). This group is also distinguished by the fear of becoming an object (victim) of extremist groups in connection with their nationality (appearance)—47%, based on the distribution by the level of respondents' education. University students (42%) are not inclined to single out extremism as a separate problem of breaking the law, but students of general education institutions (34.7%) classify the activities of extremists as a special

risk group. Based on those who found it difficult to answer, a group of secondary vocational education students is identified (Table 4).

Table 4. Distribution of respondents' answers to the question "Do you or do you not feel a threat to yourself personally or to members of your family associated with the activities of radical, extremist organizations and groups?" depending on the respondents' level of education, in %.

The level of education	SGE, %	SVE, %	HE, %
Yes, I fear for my life and the lives of my loved ones – anyone could accidentally become a victim of extremists	34.4	43	22.6
Yes, I am afraid of becoming an object (victim) of extremist groups due to my nationality (appearance)	38.2	47	14.8
Extremism is the same problem as many others associated with breaking the law	30.3	27.7	42
I do not classify the activities of extremists as any special risk group	34.7	32.1	33.2
I do not see any threats for myself or my loved ones associated with the activities of extremist groups	37.6	38.2	24.2
I find it difficult to answer	34.2	46.9	18.9

Source: Compiled by the authors.

For the question under consideration, the level of two-sided asymptotic significance was 0.000, which confirms the statistical significance of the differences (**Table 5**).

Table 5. Chi-square tests for assessing the relationship between respondents' answers to the question "Do you or do you not feel a threat to yourself personally or to members of your family associated with the activities of radical, extremist organizations and groups?" depending on the level of respondents' education.

	Meaning	Degree of freedom	Asymptotic significance (2-sided)
Pearson's chi-squared test	620.753 ^a	10	0.000
LR	602.894	10	0.000
Linear-by-Linear Association	2.180	1	0.140
Number of valid observations	15,079		

a. For cell count 0 (0.0%), a value less than 5 is assumed. The minimum expected number is 251.71. Source: compiled by the authors.

3.4. Ways to prevent the growth of extremism in society

Among the three groups of respondents by level of education (general education, secondary vocational education, higher education) there are statistically significant differences regarding the definition of measures that can reduce the level of extremist manifestations in society (**Table 6**). Thus, university students put the implementation of an active information campaign aimed at preventing extremism and xenophobia among young people in first place (40.3%), students of secondary vocational education—tightening the responsibility of public people (politicians, leaders of youth groups, etc.) for propaganda extremist ideas—35.4%. Schoolchildren, gymnasium and lyceum students in more than a third of the responses preferred a revision of the principles of implementation of youth policy (38.5%). It is worth paying attention to the fact that there is a high percentage of respondents who found it difficult to answer. This percentage is especially significant among students enrolled in secondary vocational education programs. For each of the proposed answer options, statistically significant differences were

identified depending on the level of received education: the level of two-sided asymptotic significance was 0.000.

Table 6. Assessment of dependence in respondents' answers to the question "What measures, from your point of view, will reduce the level of extremist manifestations in society?" depending on the level of respondents' education, in % (the question allowed the choice of several answer options).

Measures to reduce extremist manifestations in society	SGE, %	SVE, %	HE, %	Pearson's X2 value	h	Asymptotic significance (2-sided)
Upgrading of penalties of public people (politicians, leaders of youth groups, etc.) for promoting extremist ideas	33.7	35.4	30.9	34.654	2	0.000
Active information campaign aimed at preventing extremism and xenophobia among young people	30.5	29.2	40.3	155.901	2	0.000
Revision of the principles of youth policy implementation	38.5	36	25.4	346.296	2	0.000
Escalation of measures to identify and disrupt extremist activities	34.1	30.9	35	37.660	2	0.000
I find it difficult to answer	34.8	48.2	17	305.622	2	0.000

Source: Compiled by the authors.

4. Discussion

The data presented differ from the results of similar studies. First of all, the level of students' knowledge about the threats of extremism remains rather superficial (Figure 1), and its assessment is ambiguous, including the presence of interpretations of extremism as a form of struggle for justice (Figure 2), which may indicate potentially protest sentiments among young people. Thus, a number of authors (Krayushkina and Volodin, 2019) talk about 94% of students who are familiar with the concept of extremism, E.N. Bogdanov and co-authors indicate that there is a high percentage of those familiar with extremism via the Internet and Media—78% (Bogdanov et al., 2017). But in the study presented in the article with more expanded answer options, these figures are called into question, since when determining knowledge/ignorance about extremism, young people often understand completely different things by extremism. This returns to the conclusions, which state that the category "extremism" is insufficiently formed (Lisova and Kryukova, 2021). Indirect confirmation of this can be the data on the difficulties in the answers of respondents in Norway regarding the assessment of the issue severity of various types of extremism (Haugstvedt and Bjørgo, 2022), in Indonesia—on the lack of knowledge about religious radicalism among 22.9% of respondents (Aziz and Tago, 2023), and in Bangladesh youth noted the limited transmission of knowledge about extremism in the formal education system (Dhali, 2022).

At the same time, the study confirms the presence among young people of a significant number of people who in one way or another justify extremist activities (Kashirsky and Sabelnikova, 2014; Lisova and Kryukova, 2021) and the use of violence to solve problems (Haugstvedt and Bjørgo, 2022). Almost 25% of students in general education organizations and institutions of secondary vocational education assess extremism depending on the specific situation; more than 6% are inclined to

describe extremism as a form of struggle for justice; and among students of secondary vocational educational organizations this figure reaches almost 10%. The reasons for people's participation in extremist activities are very diverse (**Table 3**) and in a number of studies they are identified in virtually the same way, but there are differences in determining the reasons based on the level of education. Thus, university students associate extremism not only with the general social situation and personal characteristics, but with ideological aspects, religious and socio-political motives.

The research results presented in this article require further scientific understanding. The recommendations formulated based on the results of the study correlate with the conclusions of Pazukhina, who describes predictors of the development of extremist attitudes and protest behavior, including age, psychological, psychophysiological, social and personal characteristics of young people, knowledge of the reasons for individual exposure to the influence of extremist ideas, as well as the social and personal resource of subjects of educational relations (Pazukhina, 2023). In the sphere of countering the spread of extremist ideology among young people, it is important, on the one hand, an integrated approach that covers all the identified predictors, and, on the other hand, a differentiated approach, the markers of which include taking into account the social status of young people and the level of education.

Firstly, four measurable loci of subjective ideas of students of educational organizations in the Arctic region of Russia about extremism (respondents' assessment of their own knowledge about extremism; the presence/absence of radically minded people around them; determining the degree of threat from the activities of extremist groups for themselves and their social environment; identifying relevant approaches to preventing the growth of extremism in society) have a pronounced interdependency with the level of education received by the respondent.

Does this mean that the prevention of extremism in the educational environment should differ depending on the level of the educational program? Of course, targeted (group) prevention should be implemented taking into account the level of education. The delivery of information about extremist threats and measures to counter them should be carried out in accessible ways, with consideration to the characteristics of the student population, available resources, and opportunities for interdepartmental interaction.

Secondly, it requires increasing the level of general awareness of extremism among students in educational organizations, so that knowledge about this social threat does not remain at a superficial level. This can be achieved through awareness-raising work within educational, extracurricular and leisure activities. Only an adequate and comprehensive understanding of extremist threats by students will make it possible to reconstruct fears for themselves and their family environment into specific forms of countering the spread of extremism, and to initiate the subject position of students in ensuring their own safety.

Thirdly, among students in general education organizations and secondary vocational education, there is a high increase in fears and concerns in connection with the activities of radical, extremist organizations and groups. Accordingly, it is

important to discuss measures to reduce extremist manifestations in society, both in order to increase awareness and reduce the feeling of general tension, as well as to develop universal competencies to counter the spread of extremist threats. Particular attention should be paid to this work in secondary vocational education and general education organizations, where it is extremely important to develop ideas about the implemented measures to reduce extremist manifestations in society, taking into account those who found it difficult to answer.

Fourthly, there is a pressing need to develop comprehensive programs for the prevention of extremism among students, depending on their level of education, age and psychological characteristics. These programs should include educational modules, teaching and methodological complexes, organization and support of volunteer projects and social initiatives, psychological support for students, advanced training of teachers and specialists, development of a mentoring system, and methods for assessing the effectiveness of preventive measures.

5. Conclusion

The obtained results clarify information about the subjective ideas of students in the Arctic zone of the Russian Federation about the threats of extremism, demonstrate the heterogeneity of these ideas and the presence of statistically significant differences regarding the level of education—general, secondary vocational and higher. The general awareness and knowledge of students in educational institutions about various kinds of extremist threats remains superficial. There is a proportion of people potentially inclined to implement extremist ideas in practice to "achieve justice"; the attitude towards the problem of extremism, the experience of a feeling of fear and the presence of fears from the activities of radical and extremist groups are variable.

At the same time, we note that the conducted study has limitations: the survey was of a one-time nature and did not track the dynamics of changes in ideas about extremism among young people; the sample population was formed from students of educational institutions in the Arctic region of Russia, which limits the possibility of extrapolating the data to the national level.

In scientific and methodological terms, it is necessary to expand the use of qualitative methods, psychodiagnostics, and methods of statistical data analysis in research in order to identify and substantiate risk factors for the spread of extremist ideology among students in educational organizations at various levels.

In a practical sense, it is advisable, on the one hand, to organize measures to improve the social well-being of students and, on the other hand, to implement group (targeted) and individual approaches to prevention taking into account the characteristics of the population with an emphasis on developing awareness, alleviating fears from the threats of extremism, and reducing the radicalization of young people in general.

Areas for future research could include similar mass surveys of students in other regions of the country for subsequent comparative analysis of the data, supplementing the quantitative research method with qualitative research to deeply

understand the reasons for the differences in the responses of different groups of respondents.

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References

- Afanaseva, O., Bezyukov, O., Pervukhin, D., et al. (2023a). Experimental Study Results Processing Method for the Marine Diesel Engines Vibration Activity Caused by the Cylinder-Piston Group Operations. Inventions, 8(3), 71. https://doi.org/10.3390/inventions8030071
- Afanaseva, O., Neyrus, S., Navatskaya, V., & Perezhogina, A. (2023b). Risk Assessment of Investment Projects Using the Simulation Decomposition Method. In: Fundamental and Applied Scientific Research in the Development of Agriculture in the Far East (AFE-2022); Springer: Cham, Switzerland, 706, 776–785. https://doi.org/10.1007/978-3-031-36960-5 88
- Alava, S., Frau-Meigs, D., & Hassan, G. (2017). Mapping the Research. Youth and Violent Extremism on Social Media. Mapping the research. Paris, UNESCO.
- Al-Mfarriji, S. B. M. (2021). Attitude towards Extremism from the Viewpoint of University Students and Its Correlation with Some Academic Variables. Education (Al-Azhar): A peer-reviewed scientific journal for educational, psychological and social research. https://doi.org/10.21608/jsrep.2021.216155
- Aziz, A. N., & Tago, M. Z. (2023). The Efforts to Strengthen the Understanding of Religious Anti-Radicalism Among Students in College. INFERENSI: Jurnal Penelitian Sosial Keagamaan, 17(1), 129–150. https://doi.org/10.18326/infsl3.v17i1.129-150
- Bakovsky, V. B., Golovkin, S. I., Kukharova, T. V., et al. (2020). Acute period of polytrauma in children in the light of discriminant analysis. Russian Journal of Pediatric Surgery, Anesthesia and Intensive Care, 10(2), 145–156. https://doi.org/10.17816/psaic614
- Banikevich, T. D., Bykowa, E. N., Zalivatskaya, N. V., et al. (2024). Pattern determination of the territory local factors influence on the land plots' cadastral value of gardening and horticultural non-profit partnerships. Population and Economics, 8(3), 86-107. https://doi.org/10.3897/popecon.8.e115183
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychological Bulletin, 117(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497
- Beršnak, J. V., & Prezelj, I. (2020). Recognizing youth radicalization in schools: Slovenian 'frontline' school workers in search of a compass. International Sociology, 36(1), 49–70. https://doi.org/10.1177/0268580920953333
- Bhulai, R. (2017). Examining Local Perceptions of Drivers of Violent Extremism. In: Going Local: Supporting Community-Based Initiatives to Prevent and Counter Violent Extremism in South and Central Asia. Global Center on Cooperative Security, 5–9.
- Bocharov, A. V., Meshcheryakova, E. I., & Larionova, A. V. (2015). Typology of psychological factors of students' attitudes towards extremism (based on the results of questionnaires and psychodiagnostics) (Russian). Aktualnye problemy psihologicheskogo znaniya, 2 (35), 41–53.
- Bogdanov, E. N., Krasnoshchechenko, I. P., Kuznetsova, A. S., & Tsaplina, A. V. (2017). Student youth awareness of extremism and attitudes towards its manifestations (Russian). Prikladnaya yuridicheskaya psihologiya, 2 (39), 86–94.
- Bykowa, E., Banikevich, T., Zalivatskaya, N., et al. (2024). Modeling the Cadastral Value of Land Plots of Gardening and Horticultural Non-Profit Partnerships Taking into Account the Influence of Local Factors of the Territory. Land, 13, 1004. https://doi.org/10.3390/land13071004
- Chanysheva, A. F., Romasheva, N. V., & Nikulina, A. Yu. (2019). Econometric modeling of migration processes in the Arctic regions of Russia. Sever i rynok: formirovanie ekonomicheskogo poryadka [The North and the Market: Forming the Economic Order], 63(1), 110–121. https://doi.org/10.25702/KSC.2220-802X.1.2019.63.110–121

- Chanysheva, A., Kopp, P., Romasheva, N., et al. (2021). Migration Attractiveness as a Factor in the Development of the Russian Arctic Mineral Resource Potential. Resources, 10(6), 65. https://doi.org/10.3390/resources10060065
- Cherepovitsyn, A. E., & Tretyakov, N. A. (2023). Development of new system for assessing the applicability of digital projects in the oil and gas sector. Journal of Mining Institute, 262, 628–642.
- Crosby, F. (1976). A model of egoistical relative deprivation. Psychological Review, 83(2), 85–113. https://doi.org/10.1037/0033-295x.83.2.85
- Desmarais, S. L., Simons-Rudolph, J., Brugh, C. S., et al. (2017). The state of scientific knowledge regarding factors associated with terrorism. Journal of Threat Assessment and Management, 4(4), 180–209. https://doi.org/10.1037/tam0000090
- Deyneka, O. S., Dauksha, V. S., & Morozova, S. V. (2016). Value factor of students' attitude towards extremism (Russian). Mezhdunarodnyi zhurnal prikladnyh i fundamentalnyh issledovanii, 12-9, 1717–1723.
- Dhali, H. H. (2022). Coloniality, Decoloniality, and Difference: Perceptions of Extremism and the Role of Education in Shaping Perceptions among Students in Bangladesh. Available online: https://escholarship.mcgill.ca/concern/theses/pr76f8913 (accessed on 20 April 2024).
- Eslikova, E. V., Vospitannik, I. V., & Martynova, A. V. (2019). An empirical study of the attitude of students of higher and professional education institutions in St. Petersburg to issues of interethnic interaction and manifestations of extremism in the youth environment (Slovenian). In: Harmonization of interethnic relations and prevention of extremist manifestations in the educational sphere and youth environment (Slovenian). St. Petersburg, 39–62.
- Fadeev, A., Babyr, A., & Kostuchenko, A. (2022). Digital Technologies in the Production Logistic Support System of the Arctic Fields. Lecture Notes in Networks and Systems, 246. Springer, Cham. https://doi.org/10.1007/978-3-030-81619-3_64
- Fadeev, A., & Fadeeva, M. (2022). Arctic Shelf Projects as a Driver for Social and Economic Development of the High North Territories: International Experience and Potential for Russian Practice. In: Likhacheva, A. (editor). Arctic Fever. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-16-9616-9 19
- Fadeev, A. M., Lipina, S. A., & Zaikov, K. S. (2022). Staffing for the development of the Arctic offshore hydrocarbon fields. Polar Geography, 45(2), 101–118. https://doi.org/10.1080/1088937x.2022.2032448
- Fadeev, A. M., Vopilovskiy, S. S., Fedoseev, S. V., et al. (2022). Industrial Support of the Energy Projects as a Part of the Blue Economy Development in the Arctic. Sustainability, 14, 15346. https://doi.org/10.3390/su142215346
- FBI Releases. (2022). Hate Crime Statistics. Available online: https://www.justice.gov/hatecrimes/hate-crime-statistics (accessed on 20 April 2024).
- Fedotova, A. V. (2021). Modern Teenager: Protest Demonstration and Attitude Towards Extremism. Psychological-Educational Studies, 13(2), 105–122. https://doi.org/10.17759/psyedu.2021130207
- Gelfand, M. J., LaFree, G., Fahey, S., et al. (2013). Culture and Extremism. Journal of Social Issues, 69(3), 495–517. Portico. https://doi.org/10.1111/josi.12026
- Haugstvedt, H., & Bjørgo, T. (2022). Youth and extremism in 2021—A study of young people's assessment of extremism and prevention in Norway (Norwegian). Available online: https://www.sv.uio.no/c-rex/aktuelt/aktuelle-saker/2022/ungdom-og-ekstremisme-i-2021.html (accessed on 8 July 2024).
- Heinke, D. H., & Persson, M. (2016). Youth Specific Factors in Radicalization. Defence Against Terrorism Review, 8, 53–66. Information and Analytical Portal of Legal Statistics of the Prosecutor General's Office of the Russian Federation. (2022). Available online: http://crimestat.ru/aboutportal (accessed on 22 April 2024).
- Kashirsky, D. V., & Sabelnikova, N. V. (2014). Attitudes to Extremism in the Molodezhnoi Srede (after the materials of the survey of Altai students) (Slovenian). Vestnik altaiskoi nauki, 2-3(20-21), 116–123.
- Katuntsov, E. V., Kultan, J., & Makhovikov, A. B. (2017). Application of electronic learning tools for training of specialists in the field of information technologies for enterprises of mineral resources sector. Journal of Mining Institute, 226, 503-508. https://doi.org/10.25515/pmi.2017.4.503
- Kirsanova, N., Lenkovets, O., & Tkacheva, E. (2021). Shadow economy in oil and gas industry as threat to russia's economic security: issues and options. In: Proceedings of the 21st SGEM International Multidisciplinary Scientific GeoConference Proceedings 2021, Ecology, Economics, Education and Legislation, 21, 863–870. https://doi.org/10.5593/sgem2021/5.1/s21.104
- Kirsanova, N., Nevskaya, M., & Raikhlin, S. (2024). Sustainable Development of Mining Regions in the Arctic Zone of the Russian Federation. Sustainability, 16(5), 2060. https://doi.org/10.3390/su16052060

- Kirsanova, N. Y., & Lenkovets, O. M. (2022). Assessment of accountability in state regulation of Arctic zone of the Russian Federation in current institutional environment. Sever i rynok: formirovanie ekonomicheskogo poryadka [The North and the Market: Forming the Economic Order], 75(1/2022), 47–57. https://doi.org/10.37614/2220-802x.1.2022.75.004
- Kornilova, O. A. (2011). Comparative study of the features of extremist sentiments and behavioral practices in the youth environment (Slovenian). Izvestiya Samarskogo nauchnogo tsentra Rossiiskoi akademii nauk, 13(2-6), 1397–1401.
- Kovalenko, K. E., Osadchy, E. A., Goloshchapova, L. V., et al. (2019). Models of business education in Russia and their main competitive advantages. Journal of Entrepreneurship Education, 3, 1–8.
- Krayushkina, S. V., & Volodin, S. F. (2019). Socio-political views of students of Tula State Lev Tolstoy Pedagogical University and their attitude to manifestations of extremism in the youth environment (Slovak). Tula, 277–282.
- Kruglanski, A. W., Fernandez, J. R., Factor, A. R., et al. (2019). Cognitive mechanisms in violent extremism. Cognition, 188, 116–123. https://doi.org/10.1016/j.cognition.2018.11.008
- Kukharova, T. V., Utkin, V. A., & Pershin, I. M. (2021). Modeling of a Decision Support System for a Psychiatrist Based on the Dynamics of Electrical Conductivity Parameters. In: Proceedings of the 2021 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (ElConRus), 4, 975–978. https://doi.org/10.1109/elconrus51938.2021.9396273
- Lapinskas, A. (2023). Influence of mining rent on the efficiency of using natural potential: the paradox of plenty and its Russian specifics. Journal of Mining Institute, 259, 79–94. https://doi.org/10.31897/pmi.2023.13
- Lisova, S. Yu., & Kryukova, T. B. (2021). Diagnostics of the attitude of the minority to extremism and terrorism (according to the results of socio-psychological research) (Slovenian). Nauchnyi poisk: lichnost, obrazovanie, kultura, 3 (41), 49–53. https://doi.org/10.54348/2021.3.11
- Litvinenko, V., Petrov, E., Vasilevskaya, D., et al. (2023). Assessment of the role of the state in the management of mineral resources. Journal of Mining Institute, online first. https://doi.org/10.31897/pmi.2022.100
- Lvov, V. V., Smirnova, Z. V., Artemova, E. I., et al. (2019). State of university-employer interaction models in Russia. Journal of Entrepreneurship Education, 4, 1–9.
- Lyzhin, A. I., Sharov, A. A., Lopez, E. G., et al. (2021). Retracted: Modern problems of youth extremism: Social and psychological components. Journal of Community Psychology, 49(7), 2609–2622. Portico. https://doi.org/10.1002/jcop.22664
- Matrokhina, K., Trofimets, V., Mazakov, E., et al. (2023). Development of methodology for scenario analysis of investment projects of enterprises of the mineral resource complex. Journal of Mining Institute, 259, 112–124. https://doi.org/10.31897/pmi.2023.3
- Mayseless, O., & Kizel, A. (2022). Preparing youth for participatory civil society: A call for spiritual, communal, and pluralistic humanism in education with a focus on community of philosophical inquiry. International Journal of Educational Research, 115, 102015. https://doi.org/10.1016/j.ijer.2022.102015
- Meshcheryakova, E. I., Bocharov, A. V., & Larionova, A. V. (2018). Dynamics of student youth's perceptions of extremism: a comparative analysis of studies in 2014–2018 (Slovenian). Organizatsiya raboty s molodezhyu [Youth work], 6, 3.
- Nechitailo, A. R., & Marinina, O. A. (2022). Analysis of technological directions of electrification of hydrocarbon production facilities in poorly developed territories. Sever i rynok: formirovanie ekonomicheskogo poryadka [The North and the Market: Forming the Economic Order], 25(2/2022), 45–57. https://doi.org/10.37614/2220-802x.2.2022.76.004
- Nevskaya, M., Shabalova, A., Kosovtseva, T., et al. (2024). Applications of simulation modeling in mining project risk management: criteria, algorithm, evaluation. Journal of Infrastructure, Policy and Development, 8(8), 5375. https://doi.org/10.24294/jipd.v8i8.5375
- Nikiforova, V. D., Achba, L. V., Nikiforov, A. A., & Kovalenko, A. V. (2020). Dialectics of the Processes of Digitization of the Socio-economic System. In: Popkova E., Sergi B. (editors). The digital economy: complexity and diversity versus rationality. ISC 2019. Lecture Notes in Networks and Systems, 87, 690–697. Springer, Cham. https://doi.org/10.1007/978-3-030-29586-8 80
- OSCE-ODIHR (2022). Hate Crime Reporting, 2022. Available online: https://hatecrime.osce.org (accessed on 20 April 2024).
- Pazukhina, S. V. (2023). Psychological Foundations of Psychological and Pedagogical Prevention of Extremism and Protest Behavior among Young People. Psihologiya i pravo, 13(2), 206–223. https://doi.org/10.17759/psylaw.2023130215
- Ponomarenko, T. V., Nevskaya, M. A., & Marinina, O. A. (2019). Innovative learning methods in technical universities: The possibility of forming interdisciplinary competencies. Espacios, 40(41), 16.

- Radoushinsky, D. A., Radushinskaya, A. I., & Khaykin, M. M. (2023). Improving the quality of implementation of the container transportation project along the NSR based on the environmental and energy transition agenda. Polar Science, 35, 100923. https://doi.org/10.1016/j.polar.2022.100923
- Radushinsky, D. A., Zamyatin, E. O., Radushinskaya, A. I., et al. (2024). The Performance and Qualitative Evaluation of Scientific Work at Research Universities: A Focus on the Types of University and Research. Sustainability, 16, 8180. https://doi.org/10.3390/su16188180
- Romasheva, N. V., Babenko, M. A., & Nikolaichuk, L. A. (2022). Sustainable development of the Russian Arctic region: environmental problems and ways to solve them. MIAB. Mining Inf. Anal. Bull., 10-2, 78-87.
- Samuel, T. K. (2018). Undergraduate Radicalisation in Selected Countries in Southeast Asia. Available online: https://www.searcct.gov.my/wp-content/uploads/2021/06/Undergraduate_Radicalisation_in_Selected_Countries_in_SEA.pdf (accessed on 8 July 2024).
- Sas, M., Ponnet, K., Reniers, G., et al. (2020). The Role of Education in the Prevention of Radicalization and Violent Extremism in Developing Countries. Sustainability, 12(6), 2320. https://doi.org/10.3390/su12062320
- Simonchuk, V. D., & Nikulina, A. Yu. (2020). Norway's experience in attracting human resources to the Arctic region. IOP Conference Series: Earth and Environmental Science, 554(1), 012006. https://doi.org/10.1088/1755-1315/554/1/012006
- Smith, A. G. (2018). Risk Factors and Indicators Associated with Radicalization to Terrorism in the United States: What Research Sponsored by the National Institute of Justice Tells Us. Available online: https://www.ojp.gov/pdffiles1/nij/251789.pdf (accessed on 13 March 2024).
- Starostenko, O. A., & Kartashov, K. A. (2014). Extremism as a Factor in Reducing the Level of National Security and Competitiveness Russia. International Journal of Applied and fundamental research, 11(3), 414–416.
- Stroykov, G., Vasilev, Y. N., & Zhukov, O. V. (2021). Basic Principles (Indicators) for Assessing the Technical and Economic Potential of Developing Arctic Offshore Oil and Gas Fields. Journal of Marine Science and Engineering, 9(12), 1400. https://doi.org/10.3390/jmse9121400
- Vasilev, Y., Vasileva, P., Batova, O., et al. (2024). Assessment of Factors Influencing Educational Effectiveness in Higher Educational Institutions. Sustainability, 16(12), 4886. https://doi.org/10.3390/su16124886