

Perception of state measures to counter modern crises by Russian youth in the far east

Percepção das medidas estatais para combater as crises modernas pelos jovens russos no Extremo Oriente

Percepción de las medidas estatales para contrarrestar las crisis modernas por parte de los jóvenes rusos en el Lejano Oriente

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Abstract

The article aims to analyze young people's perceptions of state measures taken to mitigate the effects of the COVID-19 pandemic. The study assesses attitudes toward three main preventive measures: self-isolation, mandatory masking, and vaccination campaigns. The study uses a mixed-method approach combining quantitative survey data and qualitative focused interviews to gather comprehensive evidence. The study involved 161 students from higher education institutions and specialized secondary institutions in Primorsky Krai (Russia), including the cities of Vladivostok, Nakhodka, and Ussuriysk. The data suggest that cognitive biases, misinformation, and a preference for personal comfort over safety significantly influence adherence to these public health measures. The study identifies two distinct subgroups among young people: a passive group who complied with vaccination under external pressure from authorities and an active group distinguished by more informed and rational decision-making concerning health and safety.

Keywords: Pandemic; COVID-19; Self-isolation; Mask regime; Vaccination; Primorsky Krai

Resumo

O artigo tem como objetivo analisar as percepções dos jovens sobre as medidas estatais tomadas para mitigar os efeitos da pandemia da COVID-19. O estudo avalia as atitudes em relação a três principais medidas preventivas: autoisolamento, uso obrigatório de máscara e campanhas de vacinação. O estudo usa uma abordagem de método misto combinando dados quantitativos de pesquisa e entrevistas qualitativas focadas para reunir evidências abrangentes. O estudo envolveu 161 alunos de instituições de ensino superior e instituições secundárias especializadas em Primorsky Krai (Rússia), incluindo as cidades de Vladivostok, Nakhodka e Ussuriysk. Os dados sugerem que vieses cognitivos, desinformação e uma preferência pelo conforto pessoal em vez da segurança influenciam significativamente a adesão a essas medidas de saúde pública. O estudo identifica dois subgrupos distintos entre os jovens: um grupo passivo que cumpriu a vacinação sob pressão externa das autoridades e um grupo ativo que se distingue pela tomada de decisões mais informada e racional sobre saúde e segurança.

Palavras-chave: Pandemia; COVID-19; Autoisolamento; Regime de máscara; Vacinação; Primorsky Krai

Resumen

El artículo busca analizar las percepciones de los jóvenes sobre las medidas estatales adoptadas para mitigar los efectos de la pandemia de COVID-19. El estudio evalúa las actitudes hacia tres medidas preventivas principales: autoaislamiento, uso obligatorio de mascarillas y campañas de vacunación. El estudio utiliza un enfoque de métodos mixtos que combina datos de encuestas

cuantitativas y entrevistas cualitativas para recopilar evidencia exhaustiva. El estudio involucró a 161 estudiantes de instituciones de educación superior e instituciones de educación secundaria especializada en el Krai de Primorie (Rusia), incluyendo las ciudades de Vladivostok, Najodka y Ussuriysk. Los datos sugieren que los sesgos cognitivos, la desinformación y la preferencia por la comodidad personal sobre la seguridad influyen significativamente en la adherencia a estas medidas de salud pública. El estudio identifica dos subgrupos distintos entre los jóvenes: un grupo pasivo que cumplió con la vacunación bajo presión externa de las autoridades y un grupo activo que se distingue por una toma de decisiones más informada y racional en materia de salud y seguridad.

Palabras clave: Pandemia; COVID-19; Autoaislamiento; Régimen de mascarillas; Vacunación; Krai de Primorie

1 Introduction

The COVID-19 pandemic, an unprecedented global health crisis, has profoundly impacted societies worldwide, prompting governments to implement public health measures to mitigate its spread. In Russia, as in many other countries, these measures included self-isolation mandates, mask-wearing requirements, and widespread vaccination campaigns. Understanding public perception of these measures, particularly among youth, is critical for evaluating their effectiveness and shaping future public health strategies.

Over the past two years, scientists have been actively exploring the social and psychological aspects of the global epidemic. Vaccination, which was carried out all over the world, evokes ambiguous feelings among the population: along with hope and positive feelings, there are also fears, distrust, resistance, and protest (Ahorsu et al., 2020; Giubilini et al., 2020; Motta et al., 2018; Peretti-Watel et al., 2020). According to M.J. Hornsey et al. (2018) and E.V. Kukhtevich et al. (2018), although the benefits of vaccines are recognized by reputable medical experts, attitudes toward vaccines and the vaccination campaign among the general public (especially children) remain controversial and contradictory worldwide.

In a survey conducted in June 2020 across 19 countries, 71.5% of participants reported their intention to get vaccinated (assuming the vaccine is validated), with 83.7% in China and 59.1% in Russia (Lazarus et al., 2021). Most participants in European countries also expressed a willingness to be vaccinated. The refusal to be vaccinated was due to a lack of confidence in the vaccine.

According to a population survey in France (Detoc et al., 2020), in addition to perceived individual risk and working in the medical field, the reasons for positive attitudes toward vaccination include older age, male gender, and fear of COVID-19. A fear factor is misinformation about the unsafety of the vaccine.

A study focused on identifying the social predictors of refusal to vaccinate found that people with no education, low social status and income, minorities, and the unemployed are the most likely to resist vaccinations (Malik et al., 2020).

Russian sociologists A.R. Zaliaev, L.M. Mukhariamova, and E.Iu. Shammazova (2020) found several subjective reasons influencing attitudes to vaccination, which include attitudes toward the health care system and the state and the perception of vaccine quality. V.V. Gritsenko (2020) has identified personal characteristics influencing behavior in the context of COVID-19.

Analyzing the social foundation of unwillingness to accept vaccines in Russian society, A.R. Levinson believes that distrust of vaccination was also influenced by the accumulated distrust of the state in society. Social phobias also played a role (Levinson, 2021).

Nevertheless, the negative attitudes toward vaccination (up to 40-50% of the population) characteristic of the beginning and the middle of 2021 decreased significantly by the end of the year. One of the reasons was pressure from the government, which limited visits to public places without a QR code, and from employers. The introduction of social sanctions at different levels played its part in changing attitudes toward vaccination.

Among the social mechanisms behind the acceptance of preventive measures by the population, Russian sociologists mention the trickle-down effect, or image descent, which manifests in the borrowing of attributes of high-status groups, such as patterns of behavior and thinking, by lower-status groups (Levinson, 2021). The vaccination acceptance followed a similar pattern, from opinion leaders to the broader community.

Studies were initiated to explore attitudes to and perceptions of vaccination among young people. In Russia, one of the most significant studies was conducted in 2021 among students by E.V. Riaguzova. This study found negative attitudes toward vaccination among most respondents (Riaguzova, 2021).

Our literature review suggests that an active investigation of the attitudes of the population, including young people, toward COVID-19 vaccination and other protective measures has been initiated. It is also useful to analyze young people's perception of pandemic countermeasures and the cognitive mechanisms behind their evaluation of these measures.

2. Methods

To reconstruct young people's perceptions of the main state policy measures to counter the pandemic, we used a sociological questionnaire including several closed and open questions. This approach enabled us to study group systems of ideas about social reality and respondents' motives and preferences. We also employed the method of focused interviews. This method belongs to the category of qualitative methods and makes it possible to examine individual consciousness and its mechanisms. Particular attention was paid to the respondents' cognitive schemes and personal meanings associated with the phenomena. In interpreting the qualitative data, we relied on the methodology of psychosemantics, which allowed us to study respondents' meanings and values. In this article, the psychosemantic approach was employed for semantic analysis, which enabled us to analyze the meanings contained in the respondents' answers.

A characteristic of the content and application of psychosemantics methods can be found in the works by V.F. Petrenko (2005) and V.P. Serkin (2008).

2.1 Sample

The questionnaire survey was conducted in December 2021 – February 2022 in Primorsky Krai, Russia. The survey involved 161 respondents, who were students of higher and specialized secondary education institutions in the region. In geographical terms, the respondents represent the cities of Vladivostok, Nakhodka, and Ussuriysk. The age of respondents ranged from 16 to 24 years old. The share of men and women was approximately equal.

A series of interviews were also conducted. The sample for the focused interviews included 17 people, including students at higher education institutions in Vladivostok and one working young man. The age of the interviewees ranged from 19 to 25 years. The research was carried out with *Revista Gestão & Tecnologia (Journal of Management & Technology)*, v. 25, n.2, Ed.Especial, p.333-349, 2025 337

the participation of Anastasia Nikolaeva, a 3rd-year student of psychological counseling and psychodiagnostics at the Far Eastern Federal University, participated in the research.

3 Results

3.1 Students' perceptions of the mask regimen

As part of this study, we surveyed students' compliance with state measures to counter the spread of COVID-19: masking, self-isolation, and vaccination. The perception of their effectiveness was also investigated.

First, it is noteworthy that most respondents tended to observe the mask regime. 66% partially or fully complied with this measure (Table 1).

Those who fully complied or did not comply at all were in the minority. The majority observed these restrictions on a case-by-case basis.

Table 1
Results of a survey on students' compliance with the mask regimen

Answer options	% of respondents	Number of respondents
Yes, I comply with it	19	31
Most often comply	47	75
No, I do not comply with it	4	7
Most often do not comply	28	45
Difficult to answer	2	3

Answers to the question "How would you personally assess the effectiveness of this measure?" show that most respondents (61%) considered this measure ineffective (of which 39% answered "rather ineffective" and 22% "completely ineffective").

There is a contradiction between the perception of the ineffectiveness of this measure and compliance with it (full or partial). This can be explained only by the fact that most respondents observed the mask regime despite their low opinion of it out of sheer necessity. After all, wearing masks was obligatory for visiting public places.

In this case, the observed level of acceptance of this measure was achieved due to administrative pressure, rather than the public's conviction of its effectiveness. Hence the willingness to occasionally violate these requirements.

Table 2
The results of evaluating the effectiveness of the mask regimen

Answer options	% of respondents	Number of respondents
Difficult to answer	3	5
Rather ineffective	39	63
Rather effective	29	46
Completely ineffective	22	35
Effective	7	12

Students were asked an open-ended question about how they would characterize the mask regime 131 people answered the open-ended question.

The responses were combined into several semantic groups. The most common were different versions of the opinion that this measure is ineffective and useless (39%). The analysis shows that some respondents believed that the measure was introduced to make it look like the state is fighting the pandemic, and many expressed doubts about its usefulness. We also noted that the mask regime was observed only out of necessity:

[Medically proven ineffective.]

[No one wears a mask for health reasons, everyone wears one because they won't let you in without one.]

Some respondents expressed concerns about the effectiveness of masking and its rationale and the usefulness of the regime of its application as it was in Russia (10%):

[When masks are put away and taken out of your pocket multiple times, wearing one can cause illness].

[Effectiveness is not fully investigated].

Another semantic group includes the statements of students who believe that the mask regime violates their rights and freedoms (5%):

[Violation of people's rights].

[Abuse of political power].

However, there were also supporters of the measure who believe masking is necessary and effective to combat the pandemic (36%):

[It works].

[It is a good, safe measure to prevent disease].

Some students found masking effective with some reservations:

[The idea is quite good, but its implementation in our country is far from ideal].

[Effective only if everyone complies].

The semantic analysis allowed us to find common perceptions underlying the different attitudes of young people. Many people considered the mask regime unreasonable. There is also a category of respondents for whom the violation of their rights comes first.

3.2 Students' perceptions of self-isolation

The survey results on students' adherence to self-isolation as a key measure in the first phase of the pandemic to counter the spread of COVID-19 are presented in Table 3.

About half of the respondents always or more often complied with self-isolation (48%).

However, the same proportion of youth did not comply with self-isolation (48%). The sample is divided into two equal parts.

Table 3
Results of a survey on students' compliance with self-isolation

Answer options	% of respondents	Number of respondents
Yes, I comply with it	22	35
Most often comply	26	42
No, I do not comply with it	30	48
Most often do not comply	19	30
Difficult to answer	4	6

Answers to the question "How would you personally assess the effectiveness of this measure?" show that most of the surveyed students (71%) considered this measure effective (of which 37% answered "effective" and 34% "rather effective").

15 and 9% of respondents consider this measure to be rather ineffective and completely ineffective, respectively (Table 4).

Table 4
Results of a survey on the effectiveness of self-isolation

Answer options	% of respondents	Number of respondents
Effective	37	60

Rather effective	34	54
Rather ineffective	15	24
Completely ineffective	9	15
Difficult to answer	5	8

Thus, in this case, too, we see a gap between the level of compliance with the measure and the perception of its effectiveness. This time the level of compliance with the measure is lower than the level of certainty in its effectiveness. This fact can be explained by the lower degree of enforcement of self-isolation. In most cases it was voluntary, and only occasionally certificates verifying the need to go out to work were checked in public places. Since this measure conflicted with people's need for communication and disrupted their comfortable lives, there was a conflict of motives. Many respondents resolved it in favor of maintaining comfort and familiar life to the detriment of medical recommendations.

Next, the respondents were asked an open question about how they would characterize self-isolation. Responses were given by 116 people.

The answers were divided into several semantic groups. In total, 51% regarded self-isolation as a necessary or effective measure. Among the answers there were also opinions about the importance of caring for others:

[As a necessary measure when the incidence is high].

[We must think of other people].

Apart from supporters, there are also opponents of this measure, who believed self-isolation to be ineffective and threatening to psychological health (28%) or doubt it (11%).

[Deteriorates a person's mental health].

[Many negative effects on the economy and psychological well-being].

Some students negatively describe self-isolation because of the discomfort of this measure, which interferes with communication and recreation. This is an egocentric attitude: I do not like it because it is uncomfortable.

[Don't like it].

[You're locked up].

A common excuse for not complying with the restrictions is that many people do not comply with it, so it will not work anyway. Several students found the measure manipulative and convenient for controlling people. There are elements of conspiracy in their thinking:

[In the case of a real epidemic, it is a possible necessity, in the case of what is happening at the moment – manipulation and abuse by authorities for selfish purposes].

Despite the prevalence of positive opinions about this measure, some young people still consider it ineffective or overestimate its negative impact. It can be argued that respondents lack medical information.

3.3 Students' perceptions of vaccination

Answering the question "Have you been vaccinated against COVID-19?", 57% of the respondents answered affirmatively, while 36% were not vaccinated (Table 5).

Table 5
Vaccination completion rate in the total sample

Answer options	% of respondents	Number of respondents
Yes, I completed it	57	92
No, I did not complete it	36	58
Other	7	11

The survey results on the effectiveness of vaccination as a state measure to control the spread of COVID-19 are presented in Table 6. 46% of the respondents consider this measure effective, and 39% believe it to be ineffective to some extent.

Table 6
Evaluation of the effectiveness of vaccination

Answer options	% of respondents	Number of respondents
Effective	14	22
Rather effective	32	52
Rather ineffective	25	41
Completely ineffective	14	23
Difficult to answer	14	23

Students were asked an open-ended question about their characterization of coronavirus vaccination. Responses were received from 114 people.

A significant proportion of the respondents (24%) believed that this measure is ineffective and may even threaten their lives:

[Based on others' experience, it is not that effective].

[Pointless].

Some people do not oppose vaccination per se but consider the vaccine to be understudied:

[Injecting the population with an under-researched vaccine thrown together hastily is not a good solution].

Unexpectedly frequent are judgments based on conspiracy theories. Several respondents believed that vaccination is organized to kill or enslave people:

[Microchipping people, making them slaves of the state].

[It's mass murder of people, lack of health care. Genocide of the population!].

Many students noted that vaccination is coercive and violates their rights and freedoms (19%). Young people did not consider it justified to violate their freedom even for the sake of public safety:

[Forced].

[Abuse of political power].

[I'm all for vaccination, but without aggressively pressuring people, especially those who are afraid to get the vaccine because of possible fatal outcomes].

Nevertheless, some students considered this measure necessary (35%). For the proponents of vaccination, it is a vital measure to overcome the epidemic.

[Risky but necessary].

[You feel safer with the vaccine. When it's done voluntarily and with understanding, it's great].

We distinguished a group of students who doubted the effectiveness and validity of this measure (10%) and those who held a neutral opinion (12%). The main criticism of vaccination for many was that the vaccine is poorly studied. This aspect was noted along with the fact that there is no choice of vaccine in Russia:

[Not very well implemented in Russia, as there is almost no choice of vaccine].

[Unstudied].

Thus, the open-ended questions show the predominance of negative or ambivalent attitudes toward vaccination. The percentage of those who accepted the vaccine is higher than the share of those who believe in its effectiveness. Some respondents got the vaccine under the administrative pressure of the state and educational institutions. This, however, did not clear their doubts about the vaccine.

We found that students considered self-isolation the most effective measure to control coronavirus (71%). The effectiveness of the mask regime was deemed the lowest. The majority (61%) did not believe it was an effective measure to combat COVID-19.

The survey showed a very mixed attitude of young people toward coronavirus vaccination. 39% considered this measure ineffective to some extent, and when asked the open-ended question, 51% expressed a negative view or doubts about it. The state failed to convince this sample of the safety and usefulness of vaccination.

This attitude appears to have influenced young people's acceptance of the vaccine. 57% of those surveyed had been vaccinated, compared to 36% of those who had not. This percentage is insufficient for the development of collective immunity.

The prevalence of negative views about the effectiveness of self-isolation is also significant.

The plethora of negative views on vaccination and self-isolation shows that a significant percentage of students were not familiar with the results of scientific studies that demonstrate the effectiveness of Russian vaccines and a small share of side effects. The effectiveness of self-isolation is also positively evaluated by experts.

It can be concluded that a significant share of information about vaccines and other medical measures in the minds of students is distorted. The share of misinformation on such measures as self-isolation and vaccination can reach around 50%.

The analysis of survey materials also shows that many respondents followed dysfunctional thought patterns based on cognitive distortions. Semantic analysis points to such signs of cognitive distortions as overestimation of one's competence (the Dunning-Kruger effect), egocentrism, black-and-white thinking and negative selection, confirmation bias, and conspiracy thinking. A great contribution is also made by the ingrained distrust of authority and official discourse in society.

The comparison of beliefs about the effectiveness of medical measures and willingness to comply with them reflects curious disproportions. It appears that, even when convinced of the effectiveness of a protection measure, many students were not ready to sacrifice their freedom of movement, communication, and contact with the outside world for their safety. Comfort matters more than safety. In this, we can see a manifestation of the influence of consumerist social values.

The analysis allows us to conclude that coercive and prohibitive measures by the state in an epidemic are appropriate from a psychological point of view.

3.4 Qualitative study of attitudes toward vaccination

To differentiate the reasons behind different perceptions of vaccination as the most significant and controversial component of preventive measures, we conducted an additional qualitative study.

At the first stage, interviews with young people were conducted to identify attitudes toward vaccination and the sources of information about it. Next, the answers were subjected to semantic analysis. The analysis of survey results demonstrates the presence of two groups in the youth environment, which differ in their attitudes and strategies used to solve health-related problems. The first group is characterized by a mostly passive attitude to health issues and conformism, they rarely make their efforts to understand complex issues, such as vaccination. This group is also marked by a pronounced distrust of official information sources and mass media. The circle of information sources is narrowed and includes Internet media, bloggers, and their social environments. Importance is also assigned to the opinion of personally acquainted medical practitioners. Conflicting information from these sources leads to health fears, disorientation, and misconceptions.

Members of this group are most prone to cognitive distortions, such as conspiracy thinking, egocentrism, and the overestimation of their competence. In several interviews, they expressed the view that the goals of vaccination are "not what they say" and that "no one can be trusted".

The decision to take the vaccine was made by these young people under pressure from the state and their employers. Their tactic in the vaccination situation was to wait and surrender to the

circumstances. When employers and educational institutions began to impose restrictions on the unvaccinated, they were forced to accept the vaccine.

Representatives of this group are hardly capable of an adequate, balanced assessment of state policy. This group can be nominally called "passive". They have factually handed over responsibility for themselves to the state. Their motto is "all problems will be solved with time" and "let authorities deal with the problems".

The second group of youth is distinguished by a more active stance and rational tactics in solving problems in matters of health and safety. This group is also more informed, has a wider range of sources, and knows how to work with them. Its representatives seek information from scientific sources, including medical databases. Same as the first group, they listen to the doctors they know, but they also turn to the opinion of renowned medical experts. Representatives of this group tend to think not only about themselves but about other people as well. Their assessment of the state policy shows balance, the ability to see its strengths and weaknesses.

This part of the youth believes that the vaccination campaign, with all its disadvantages, is meant to prevent disease and keep people healthy. Their judgments are more logical and objective. Vaccination is perceived rather positively (there are some doubts, but they are less pronounced). Representatives of the second group accepted the vaccine more quickly and more often voluntarily.

This group can be referred to as an "active" group of youth. Amid a crisis, they take responsibility for themselves and their relatives. In an extreme situation, they can understand a difficult problem and find a way out.

Representatives of this group show greater personal strength and maturity. There is no clear boundary between the two groups and some respondents can be placed between these positions.

Both groups show high sensitivity to coercion and the restriction of choices. Personal freedom is valuable for our respondents. The key grievances regarding the vaccination campaign concern infringement of the freedom of choice.

Thus, a factor influencing the development of attitudes toward vaccination and other preventive measures is the personal characteristics of respondents, including activity, intelligence, and personal maturity. Differences in the general position in life also influence their strategies for

solving health and safety problems. These qualities determine the information flows and social influences to which young people open up.

It can be hypothesized that the existence of these two groups in the youth environment will also play out in other critical circumstances.

4 Conclusions

The interviews show the presence of two groups in the youth environment, differing in their personal characteristics, position in life, and strategy for solving health problems. The passive group is characterized mainly by a passive attitude to health issues. The vaccine was accepted by them under pressure from the state and the employer. Their strategy in the pandemic situation was to wait and surrender to circumstances. The second group of young people is distinguished by an active position, rationalism, and personal maturity. This determines more rational strategies for problem-solving health issues. The second group has a wider and more scientifically grounded range of sources.

Thus, social influence and the personal characteristics of respondents play a major role in the choice of behavioral strategies.

The methods used in the study prove the great importance of the category of freedom. This reflects the value of personal freedom for young people. Any policy restricting freedoms inevitably causes a strong internal resistance in this age category.

In our view, giving young people complete freedom of choice is also not as effective. The tendency of young people to prioritize comfort prevents them from willingly complying with restrictions dictated by necessity.

The analysis of the perception of safety measures during the pandemic allows us to conclude that coercive measures on the part of the state in the face of a security threat are justified. The mechanisms of social control affected compliance with those preventive measures that would otherwise have been ignored by a large part of the youth population.

It could be recommended that coercive measures include a choice in secondary issues (e.g., choosing between vaccines). This would create a more attractive image for the target population. In addition, there is a need for a youth-oriented information campaign.

In general, the inherent values of youth are rooted in the values offered to them by society. This is a system of consumer-type values. It can be assumed that the younger generation is marked by individualism and a striving for hedonistic consumption. The values of caring for others and exercising self-restraint are less represented in the studied material.

The detected stereotypes are also conditioned by society. Nevertheless, some respondents resort to scientific information and rational thinking. This allowed them to choose more adequate sources of information from the information field. The other part has a lower level of awareness and thinks dysfunctionally.

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References

- Ahorsu, D.K., Lin, C.-Y., Imani, V., Saffari, M., Griffiths, M.D., & Pakpour, A.H. (2020). The fear of COVID-19 scale: Development and initial validation. *International Journal of Mental Health and Addiction*, 20, 1537-1545. <https://doi.org/10.1007/s11469-020-00270-8>
- Detoc, M., Bruel, S., Frappe, P., Tardy, B., Botelho-Nevers, E., & Gagneux-Brunon, A. (2020). Intention to participate in a COVID-19 vaccine clinical trial and to get vaccinated against COVID-19 in France during the pandemic. *Vaccine*, 38(45), 7002-7006. <https://doi.org/10.1016/j.vaccine.2020.09.041>
- Giubilini, A., Savulescu, J., & Wilkinson, D. (2020). COVID-19 vaccine: Vaccinate the young to protect the old? *Journal of Law and the Biosciences*, 7(1), Isaa050. <https://doi.org/10.1093/jlb/Isaa050>

- Gritsenko, V.V., Reznik, A.D., Konstantinov, V.V., Marinova, T.Yu., Khomenko, N.V., & Izrailovitz, R. (2020). Strakh pered koronavirusnym zabolevaniem (COVID-19) i bazisnye ubezhdeniia lichnosti [Fear of coronavirus disease (COVID-19) and basic personality beliefs]. *Clinical Psychology and Special Education*, 9(2), 99-118. <https://doi.org/10.17759/cpse.2020090205>
- Hornsey, M.J., Harris, E.A., & Fielding, K.S. (2018). The psychological roots of anti-vaccination attitudes: A 24-nation investigation. *Health Psychology*, 37(4), 307-315. <https://doi.org/10.1037/hea0000586>
- Kukhtevich, E.V., Martynov, Yu.V., Kulagina, M.G., Gurevich, K.G., Arkhangel'skaya, A.N., & Mitrikova, L.Ts. (2018). Immunoprofilaktika: Pozitivnye i negativnye tendentsii [Immunoprophylaxis: Positive and negative trends]. *Infectious Diseases: News, Opinions, Training*, 7(2), 84–91. <https://doi.org/10.24411/2305-3496-2018-12010>
- Lazarus, J.V., Ratzan, S.C., Palayew, A., Gostin, L.O., Larson, H.J., Rabin, K., Kimball, S., El-Mohandes, A. (2021). A global survey of potential acceptance of a COVID-19 vaccine. *Nature Medicine*, 27, 225-228. <https://doi.org/10.1038/s41591-020-1124-9>
- Levinson, A.R. (2021). Grazhdane i gosudarstvo v usloviakh kovida [Citizens and the state in the context of COVID-19]. *The Russian Public Opinion Herald*, 3-4(133), 18-28.
- Malik, A.A., McFadden, S.M., Elharake, J., & Omer, S.B. (2020). Determinants of COVID-19 vaccine acceptance in the US. *EClinicalMedicine*, 26, 100495. <https://doi.org/10.1016/j.eclinm.2020.100495>
- Motta, M., Callaghan, T., & Sylvester, S. (2018). Knowing less but presuming more: Dunning-Kruger effects and the endorsement of anti-vaccine policy attitudes. *Social Science & Medicine*, 211, 274-281. <https://doi.org/10.1016/j.socscimed.2018.06.032>
- Peretti-Watel, P., Seror, V., Cortaredona, S., Launay, O., Raude, J., Verger, P., Beck, F., Legleye, S., L'Haridon, O., & Ward, J. (2020). A future vaccination campaign against COVID-19 at risk of vaccine hesitancy and politicization. *Lancet Infectious Diseases*, 20(7), 769-770. [https://doi.org/10.1016/S1473-3099\(20\)30426-6](https://doi.org/10.1016/S1473-3099(20)30426-6)
- Petrenko, V.F. (2005). *Osnovy psikhosemantiki* [Fundamentals of psychosemantics]. St. Petersburg: Piter, 435 p.
- Riaguzova, E.V. (2021). Kognitivnye aspekty otnosheniia studencheskoi molodezhi k vaktsinatsii ot COVID-19 [Cognitive aspects of students' attitudes toward COVID-19 vaccination]. *Russian Psychological Journal*, 18(2), 109-121. <https://doi.org/10.21702/rpj.2021.2.7>
- Serkin, V.P. (2008). *Metody psikhologii subektivnoi semantiki i psikhosemantiki: Uch. pos. dlia vuzov* [Methods of subjective semantics and psychosemantics psychology: Manual for universities]. Moscow: PCHELA, 378 p.
- Zaliaev, A.R., Mukhariaeva, L.M., & Shammazova, E.Iu. (2020). Vaktsinatsiia ot COVID-19 v kontekste obshchestvennogo doveriia [COVID-19 vaccination in the context of public trust]. *Sotsialnaia politika i sotsiologiya*, 19(4), 127-135.