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REFUSAL FACTORS FOR COVID-19 VACCINATION AMONG RUSSIANS AND MIGRANT WORKERS

Abstract: To identify the factors for refusal of COVID-19 vaccination in Russia, Russians and migrant workers were asked about their attitudes toward vaccines against COVID-19. Ten people took participated in the interview and were divided into two groups. After examining the reality of the factors for vaccination rejection and practically confirming it, it is possible to conclude that the following factors contribute to COVID-19 vaccination refusal. First, it is a historical factor. Soviet Union Russians believed in Soviet medicine and had few intentions to reject vaccination. Additionally, many people had positive thoughts about vaccines. The collapse of the Soviet Union revealed that trust in the country itself was fading, and faith in national medicine also started to disappear. Secondly, it is a time difference. Young Russians think they won't be seriously ill even if they get sick, often search for information online, and the variation of data creates more doubt and distrust. The older generation feels more vulnerable and receives many vaccines. They do not use the internet often and trust official sources of information. Thirdly, it is a cultural factor. Russians received the COVID-19 vaccine only after the chief sanitary doctor's decision for compulsory vaccination. This situation no longer allows for procrastinate when it comes to getting vaccinated. Migrant workers said that they had been immunized against COVID-19 because they always meet the requirements of their employers. People from the 1990s also used the internet more often, which was a source of doubt about the vaccine's effectiveness and possible side effects.

Key words: COVID-19 vaccine, Russian vaccine, vaccination refusal.

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Introduction

A pandemic is an unusually powerful epidemic that has spread over the territory of countries and continents, reaching the highest level of development in the epidemiological process [1]. According to the World Health Organization (WHO), COVID-19 was first reported in December 2019 in Wuhan, China. On January 30, 2020, WHO declared the outbreak a public health emergency of international concern, and on March 11, 2021, it was declared a pandemic. As of October 18, 2021, more than 240.7 million confirmed cases of COVID-19 have been registered worldwide, and more than 4.9 million deaths have been confirmed, making the COVID-19 pandemic one of the deadliest in history. As of April 1, 2022, there

were 486,761,597 registered cases of COVID-19 and 6,142,735 deaths [2].

Vaccination is a simple, effective, and safe way to protect against infectious diseases before contact with the pathogen. Its mechanism of action is reduced to activating the body's natural defense mechanisms [3, p. 640]. Russia is the country that invented and registered the world's first COVID-19 vaccine called "Sputnik V". Large-scale vaccination campaigns continue across Russia. However, some Russians are still wary of vaccination for various reasons. In most cases, people's doubts about the benefits of vaccination are caused by a large amount of conflicting information, mainly misinformation on the

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Internet. More and more voices have been rising against the COVID-19 vaccine on internet forums.

Therefore, this study aims to explore the attitude of Russians and immigrants living in Russia toward vaccines and the causes of refusal to receive COVID-19 vaccination. First, current statistical information on coronavirus infection and vaccination was analyzed. A qualitative research method was used to examine the actual situation regarding vaccination in the Russian Federation, and five natives residing in Russia and five migrant workers were interviewed. Due to the aggravated condition of COVID-19, interviews were conducted through Facebook and WhatsApp messenger in January 2022, and participants were asked to provide answers to a few questions.

I. COVID-19 patients and vaccination status in Russian Federation

1. Status of COVID-19 patients

Since January 27, 2020, two cases of coronavirus infection have been registered in Russia, which has risen sharply to 4,731 cases in March. In January 2021, with a vast difference, it had increased to 3.8 million cases. As of April 1, 2022, the number of confirmed cases of COVID-19 in the Russian Federation was 17,862,089. Russia's first death from coronavirus was recorded in March 2020, with eight people, but a month later, this number rose to around 2,000. In March 2021, a considerable difference was seen with 100,000 people, and as of April 1, 2022, the number of deaths increased to 369,064 [4].

2. COVID-19 vaccination status

In December 2020, a large-scale massive vaccination campaign against a new coronavirus infection was announced in the country, and on January 18, 2021, mass immunization of the population began. The vaccines are available to everyone, not just those at risk of COVID-19 [5].

On the one hand, vaccination in Russia is voluntary under Russian Federation Law No 323 "On the Basics of Protection of Citizens' Health". However, there is also right to refuse vaccination under the provision of Federal Law No.157 "On Immune Prevention against Contagious Diseases". In the case of vaccination refusal under the same law, employment may be temporarily denied or work with a high risk of contracting an infectious disease may be suspended [6; 7].

For example, on October 11, 2021, a senior hygienist of Primorsky Region, Tatyana Detkovskaya, signed a decree on compulsory vaccination of the citizen, which covers public service workers and government officials. According to the statute, the first vaccine component must be injected by November 15 and the second by December 15 [8].

It has been noticed that the mandatory vaccination campaign is being implemented at workplaces in that region. Hence people agree to vaccination when they hear that they will be fired or

placed on unpaid leave. On November 15, many residents of the Primorsky Region who want to continue working or studying at university have to wait in long lines at vaccination stations. People came on the last day because they thought "everything seems to be okay without vaccination" [9]. Thus, the proverb "Пока гром не грянет, мужик не перекрестится" immediately comes to mind, which concerns careless people who wake up when the problem comes without taking preventive measures.

Analyzing the situation across the country, as of November 20, 2021, the total number of vaccinations in Russia reached 119,759,585 people. Among them, 63,496,542 people (43,48%) received the first vaccine component, and 53,578,117 people 36,69% received the second component, which is 50.2% of the total population of the Russian Federation [10].

As of April 1, 2022, the total number of vaccinations reached 163,623,016 cases. Among them, 79,968,434 people received the first vaccination, 72,847,646 received the second vaccination, and 12,945,781 received the third vaccination, which is 8.86% of the total population of the Russian Federation. Russia's collective range reached 48%. These statistics include all citizens and migrants living in the Russian Federation. On the other hand, the vaccination situation among the OECD countries showed that the complete vaccination rate was high in Portugal, at 92.81%, accounting for 86.65% in Korea and 86.01% in Spain [11].

3. COVID-19 vaccines

Five COVID-19 vaccines have been registered and used in Russia. "Sputnik V" was developed on August 11, 2020, "EpiVac Corona" released on January 13, 2020, "CoviVac" registered on February 19, 2021, "Sputnik Light" on May 06, 2021; and finally, "Sputnik M" developed on November 25, 2021 [12].

The Sputnik V vaccine has been approved in 71 countries with a total population of four billion people, more than 50% of the world's population. Regarding the number of approvals received, Sputnik V ranks second in the world. The vaccine's effectiveness was 97,6% based on data analysis from 3.8 million vaccinated Russians. In addition, a report by the Russian Direct Investment Fund reported that the results of Sputnik V use during the vaccination of populations in several countries show that Sputnik V is the safest and most effective. And from March 4, 2021, Sputnik V is going through a progressive review process at the European Medicines Agency, which approves drugs for intensive use in the European Union [13]. Therefore, it can be judged that the Russian vaccine is safe. However, Korea does not approve of Russian vaccines, and the WHO recognizes and uses only officially approved and has embraced vaccines.

4. Russian vaccination history

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Looking at the history of vaccination in Russia, there are five cases. First, the smallpox vaccination. The first vaccination in Russian history was given to Catherine II on October 23, 1768 [14, p. 56-59]. Secondly, rabies vaccination. On June 11, 1886, the first rabies vaccination station in the Russian Empire (the second in the world) appeared in the city of Odessa, and then vaccination began [15]. Thirdly, plague and cholera vaccines. In 1892, a great doctor named Vladimir Khavkin created the first cholera vaccine and tested it on himself. In 1934, Magdalena Pokrovskaya, a Russian infectious disease expert, also developed this vaccine [16]. Fourthly, the polio vaccine. In 1956, virologist Albert Sabin created an effective and safe vaccine, which he and Mikhail Chumakov, director of the Polio Institute, continued to develop in Moscow. That is why mass vaccination against polio began in 1959 [17]. Finally, vaccination against tuberculosis. In 1921, French microbiologist Albert Calmette and veterinarian Camille Guerin created a tuberculosis vaccine for use in humans. In 1925, Calmette passed the strain of this vaccine to a professor named Tarasevich in Moscow, and experimental and clinical research on vaccines and vaccination began in the former Soviet Union [18].

5. Anti-vaccination movement in Russia

According to an international poll by the independent organization "Vaccine Confidence Project," in 2016, the Russian Federation ranked third among the countries with the most negative and skeptical population opinion towards vaccine prevention, after France and Bosnia and Herzegovina. Moreover, Russia leads in the number of opponents of vaccination against COVID-19 [19].

According to an international public opinion poll conducted by "Morning Consult" from November 2 to November 8, 2021, in 15 countries, Russia leads in the number of opponents of COVID-19 vaccination, with 23% of respondents stating that they do not want to be vaccinated. However, Russia ranks last among these 15 countries in terms of the number of citizens vaccinated against COVID-19, with only 40% of the population vaccinated (compared with 67% of vaccinated Americans and 84% of the French). The main reason for anti-vaccination views in Russia is as follows: 37% of Russians who are not going to be vaccinated answered that they are afraid of side effects [20].

The study "Vaccination denial is the new epidemic of the XXI century" conducted in Russia in 2019 revealed a generalized portrait of anti-vaccination advocates. First of all, these are young mothers born in the late 1990s and early 2000s. They are housewives or on maternity leave and are very active online. Secondly, they are young people. A large percentage of opponents of vaccination among young people (65,6%) can be explained by the lack of

life experience and exposure to the influence of other people's opinions. In the case of women, fear of "artificial" impacts the human body [21].

There are three reasons why Russians don't trust vaccines. First, it is the Internet. Second, in 1998 British doctor Andrew Wakefield claimed the measles vaccine caused autism. Third, there is a commercial interest of pharmacological companies and the state.

The first peak of anti-vaccination sentiment in modern Russia came in the 2000s. There are many factors, but the main one is the emergence of the Internet in our lives. Advances in communication technology have brought hundreds of millions of users to the Internet. According to a report by Global Digital at the beginning of 2021, Internet users in Russia reached 85% of the total population, and social network users accounted for 67.8%. Russian Internet users spend an average of 7 hours and 52 minutes on the Internet each day, nearly an hour more than the global average of 6 hours and 54 minutes [22].

There is plenty of negative information about vaccines on Russian social sites [23, p.1774-1778; 24, p.40-41; 25, p. 90-97], so let's look at their ranking [26, p.1752-1754; 27, p. 90-97; 28, p. 112-113]. 1) Vaccines have many side effects. 2) Vaccines also contain harmful substances. 3) Injecting many vaccines can suppress or weaken immunity by increasing the load on the immune system. 4) Doctors intentionally submit inaccurate medical complication statistics. 5) It is better to reject the need for any vaccinations completely.

A survey conducted by the Social Design Center and Online Market Intelligence, called "Platform," found that 40% of respondents feared the long-term side effects of the COVID-19 vaccine [29].

In the summer of 2020-2021, the Levada Center conducted a survey on why Russians do not want to be vaccinated against COVID-19. The results showed that 60% of respondents did not want to be vaccinated, while 20% had already been vaccinated. Among those who did not wish to be vaccinated, the reasons given were 1) a lack of trust in vaccines due to the rapid development of the COVID-19 vaccine in Russia without thorough testing, and fear of potential side effects; and 2) a lack of trust in COVID-19 statistics, with half of respondents believing doctors were underreporting cases, and the other half believing they were over reporting them [30].

II. Research results

Russians and immigrants were asked about their attitudes toward vaccines to identify the factors that prevented vaccination against COVID-19 in Russia. And the actual refusal situation was examined and verified in practice. Among the participants in this interview were five Russians and five migrant workers living in Russia. The interviewees were divided into two groups.

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Table 1. Russian citizen’s information

No	Gender	Citizenship	Date of birth	Occupation	Number of household members
1	Female	Russian	1976	unemployed	1
2	Female	Russian	1955	junior nurse	1
3	Male	Russian	1952	auto repair staff	1
4	Female	Russian	1983	medical device company’s employee	3
5	Female	Russian	1991	housewife	2

The interviews conducted with Russian citizens included participants from different age groups, such as people in their 30s, 40s, and 60s. Most of them lived alone or had few family members, and they had diverse occupations. Specifically, there were two respondents in their 30s, one in their 40s, and two in their 60s.

Almost all of the Russian participants from various age groups mentioned that they got vaccinated only because it was compulsory at their workplace, indicating that the mandatory vaccination policy was effective in increasing vaccination rates. Those in their 30s who had been vaccinated shared that they had initial doubts about vaccines due to reading posts and comments on the internet or hearing about side

effects from friends or acquaintances. Therefore, they were afraid of possible side effects. On the other hand, respondents in their 40s and 60s mentioned that they believe in Russian medicine and vaccines since the Soviet Union era and still believe in and respect it. They always had all vaccines because they thought vaccinations were essential for the whole population. They also stated that they listen to and read only official sources of information about Russian vaccines that are verified by TV or radio and do not rely on the Internet for information. One respondent shared a detailed story about the method and process of vaccination in the former Soviet Union. Additionally, one of the respondents expressed doubts and concerns about her husband’s willingness to get vaccinated.

Table 2. Migrant workers’ information

No	Gender	Citizenship	Date of birth	Occupation	Number of household members
1	Female	Uzbekistan	1995	tattoo expert	3
2	Male	Uzbekistan	1991	salesman	3
3	Male	Uzbekistan	1990	carrier	3
4	Female	Kazakhstan	1976	supermarket employee	4
5	Male	Kazakhstan	1974	supermarket employee	4

As shown in Table 2, migrant workers in their 20s, 30s, and 40s provided answers during an interview conducted through social media. They come from household with an extensive number of members, with three participants from Uzbekistan and two from Kazakhstan. Most of them work in service jobs that involve contact with many people.

The interviewed migrant workers were vaccinated with the Sputnik V vaccine and expressed a respectful and positive attitude towards Russian medicines and vaccines. As shown (Table 2), migrant workers in their 20s, 30s, and 40s gave answers in the interview conducted through social media. The number of household members is extensive, three participants come from Uzbekistan, and two are from Kazakhstan. In the case of jobs, most of them are service jobs and have approached many people.

Migrant workers who participated in the interview were vaccinated with the Sputnik V vaccine and had a respectful and positive attitude towards the

Russian vaccine and also emphasized that Russian medicines and vaccines are of higher quality and efficiency than the home country’s products. In addition, it was found that all migrant respondents got the employer's requirements and had the vaccine immediately after being told they needed to be vaccinated against COVID-19. Respondents in their 20s and 30s feared the side effects of vaccines because they listened to their relatives or read the information online.

III. Conclusion

Many Russians use the Internet that’s why they can find numerous anti-vaccination sites, forums, blogs and, of course, anti-vaccination posts, which infect a generation with fear and doubt about vaccines. According to the results of several polls about CORONA-19 vaccination refusal, many Russians do not want to be vaccinated. In other words, people do not fully understand the actual situation of the virus and do not believe the statistics on the number of cases

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and deaths. Or that vaccines made too quickly will not work and that there is a commercial relationship between pharmaceutical companies and the state.

After examining the reality of factors leading to vaccination rejection and confirming them, it can be concluded that the following factors contribute to COVID-19 vaccination refusal in Russia.

First, a historical factor plays a role. During the Soviet Union, Russians had faith in Soviet medicine and rarely refused vaccination. They held positive views about vaccines. Russian participants born during this period continue to believe in Russian medicine and vaccines, ability to combat and eradicate the coronavirus. However, after the collapse of the Soviet Union, trust in the country and national medicine started to fade. As Russians began traveling abroad more freely, they became more prone to protesting about various issues, including vaccination, like people in other countries. Respondents born after the collapse of the Soviet Union expressed doubt about the quality of the Russian COVID-19 vaccine, given its quick development compared to vaccines developed elsewhere.

Second, a time difference is another factor. Young Russians believe that they will not become seriously ill even if they contract the virus. They also rely heavily on online sources if information but it can be challenging to distinguish truth from lies in the

abundance of data available. This creates doubt and mistrust. In contrast, the older generation feels more vulnerable and trusts official sources of information. They receive many vaccinations and do not use the internet as often.

The third factor is cultural. Most of the interviewed Russians confirmed that they only received the COVID-19 vaccine after the chief sanitary doctor's conclusion on compulsory vaccination of the population. This behavior can be considered a cultural factor. In other words, it has become a situation where it is no longer possible to postpone getting vaccinated, and people could be fired from their jobs if they refuse.

The migrant worker respondents stated that they were vaccinated against COVID-19 because they come to our country to earn money and always meet their employer's requirements. However, immigrants born in the 1990s use the Internet more often and read various information about vaccination, which seems to indicate a source of doubt about the vaccine's effectiveness and possible side effects.

In this way, the responses of interviewed participants helped to examine the attitude toward COVID-19 vaccination and the Russian vaccine, making it possible to explore and practically confirm the facts of the refusal to receive COVID-19 vaccination.

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