

# PUBLIC PERSPECTIVE ABOUT COVID-19 VACCINE: A CROSS SECTIONAL SURVEY

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## Abstract:

**Background and aim:** Corona virus disease (COVID-19) pandemic having life threatening symptoms. To slow down the effects of this virus vaccination will be best strategy ever. To increase the vaccination rate, we have to first analyse the general public perception regarding the COVID-19 vaccination. The aim of this study to investigate the knowledge, attitude, perspective and concerns regarding COVID-19 vaccination among the general public in the India.

**Method:** A cross-sectional survey-based study was conducted amongst the general public in March 2021. A questionnaire was made using Google forms. The link was then distributed via online social media platforms like WhatsApp and Facebook. Participants were encouraged to pass on the questionnaire to their contacts. The survey was conducted using 5 google forms containing different types of questions. The main outcome of the study was to create awareness regarding COVID-19 vaccination and to enhance the vaccination rate

**Result:** To analyse the general public attitude, perspective and concerns towards COVID-19 vaccination online survey had conducted comprising almost 600 respondents (female s= 53%, males = 47%). We found that 54.2% participants hadn't received the COVID-19 vaccine ; while 45.8% had been vaccinated in the month of April, 2021. Most of ones had observed the side effects after COVID-19 vaccination such as fever, tiredness and pain at the site of injection. Findings reflects that, the primary reason for being unvaccinated was the concerns regarding possible side effects after vaccination as well as general public having fear about vaccine safety and toxicity due to its early development.

**Conclusion:** General public have various types of knowledge, attitude, perception and concerns regarding COVID-19 vaccine in India. Before initiated the mass vaccination program; the Indian Government need to be focus on to create awareness regarding COVID-19 vaccination to enhance the vaccination rate as well to reduce the vaccination refusal rate among the general public in India.

**Keywords:** COVID-19, COVID-19 vaccine, SARS-COV-2, Vaccination rate

## I. Introduction

Corona virus disease (Covid19) is a highly infectious disease. As it highly contagious disease, it has been too rapidly spreading all over the world.<sup>1,2</sup>This pandemic was originated from the China, Wuhan on 31st December,2020.<sup>3,4</sup> The death cases has been crossed the 1 lakh margin (1,82,570 ),as of 21st April,2021 whereas the active COVID-19 active cases are 15,616,130.<sup>5</sup> The India reported the first confirmed case of the coronavirus infection on 30th January,2020 in the state of Kerala.<sup>1,6</sup> The affected had a travel history from Wuhan, China. Since then the COVID 19 cases have been increasing rapidly in all over the Country.<sup>6</sup>

To prevent the or to slow down the effects of this virus there is need to be implementation of any preventive measure. As an exact medicine not yet came into the market to totally cure it, vaccination will be the best strategy ever.<sup>1,7-9</sup> Being vaccinated is not only protect you from the exposure of this virus but also protect the individuals around you; as after vaccination you will become less to likely to infect the people. So, it's the best solution to outbreak the chain of this virus.<sup>10</sup> The Indian government has approved the 2 vaccine in India for the use. First is Covishield which is developed by the Serum Institute of India and second one is Covaxin, an Indian vaccine manufactured by the Bharat biotech in partnership with the Indian Government. Both the vaccine having the almost safe efficacy rate i.e near to the 81%.<sup>11,12</sup>

Currently the Sputnik V vaccine also has been approved by the Indian government which is manufactured by the Russian medical research Institute and it's having more efficacy i.e.95% than the previous two COVID-19 vaccines.<sup>12</sup>

As stated by the Indian Government Vaccination policy, firstly the vaccination had been started to the healthcare as well as frontline worker followed by then it has given to the over 60 years old individuals and age groups from the 45-59 with comorbidities.<sup>10,13</sup> Currently the Indian government announces the next 3rd phase of COVID 19 vaccination in that the all who are above the 18 years , From 1st May, 202 they all will be eligible for getting vaccination.<sup>13</sup>

To increase the vaccination rate, we have to first analyse the general public perception regarding the COVID-19 vaccination.<sup>1,13</sup> The aim of this study to investigate the knowledge, attitude, perspective and concerns regarding COVID-19 vaccination among the general public in the india.<sup>13</sup>

## II. Methodology

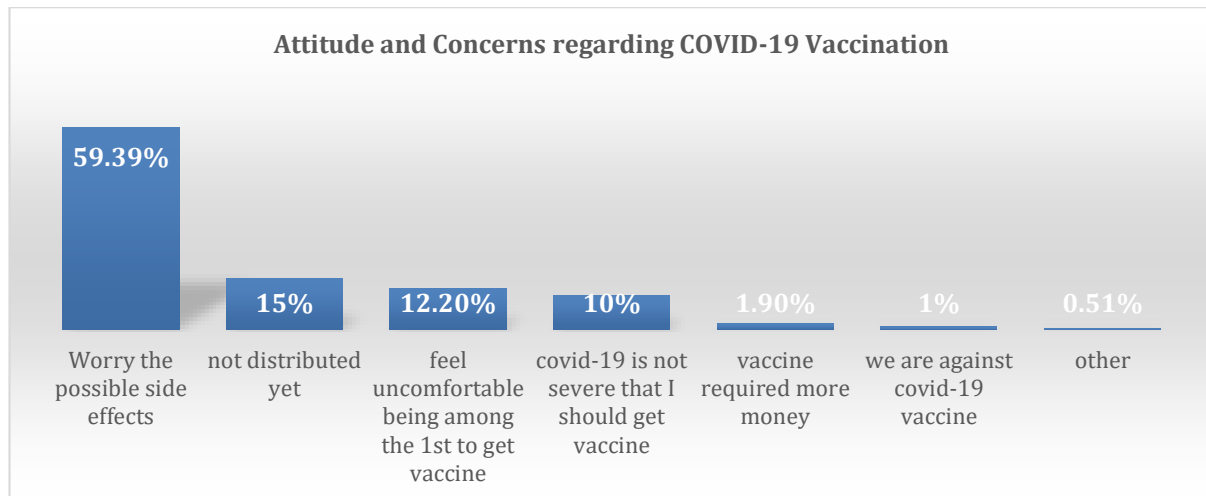
A cross-sectional survey-based study was conducted in March 2021. Articles were review and information was collected regarding the COVID-19 vaccination. Discussed the questions and finalized questionnaire for survey purpose. After collection of data related to COVID-19 Vaccination, questionnaire was done and the google form were created for online survey on the topic. The link was then distributed via online social media platforms like WhatsApp and Facebook. Participants were encouraged to pass on the questionnaire to their contacts. The survey was conducted using 5 google forms containing different types of questions. Offline survey also had taken; For offline survey questions were asked individually in our local area and responses were collected. The main outcome of the study was the general public perception about the COVID-19 vaccine.

### III. Result and discussion

To analyse the general public perception towards covid19 vaccination online survey had conducted comprising almost 600 respondents (females=53%, males=47%).

#### Negative attitude and concerns regarding the COVID-19 Vaccination:

In this study we found that almost 45.8% respondents had vaccinated; however, 54.2% hadn't received Covid19 vaccine and the primary reason of being unvaccinated was the concerns regarding possible side effects after vaccination. We had observed that 57.9% participants said that they didn't plan yet to get vaccinated. 15.8% general public were worried about the Covid19 vaccine safety while 26.3% don't have a trust on the vaccine distribution process. whereas few participants were against the covid19 vaccine and they feels that covid 19 is not so severe that we should get vaccinated. Some people had economical issue at the same time they were willing to take vaccine but in a low cost or free of cost with a high efficacy



The following kinds of questions were asked by the survey:

Do you want to take COVID-19 vaccine when it will be commercially available?

Have you done COVID-19 vaccination?

If No then what's the actual reasons?

How much price you have paid for COVID 19 vaccination?

Is that vaccination price affordable to you?

Have you identified any side effects after COVID 19 vaccination?

If 'Yes ' then what types of side effects had you seen?

#### Rumours or mistrust regarding vaccines

Behind everything there is facts along with its myths or false beliefs. Same in case of Covid19 vaccines, the rumours are readily circulating that behind the Covid19 and Could19 vaccine there is politics and the Covid19 is not so severe that the people should get vaccinated themselves.

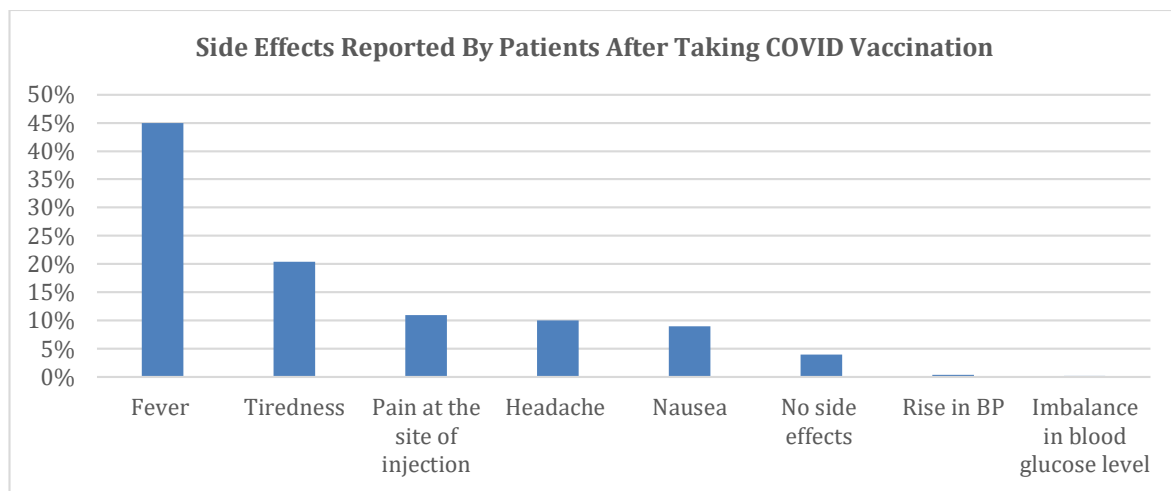
Some says that the people whose having suppressed immunity that should get it to build it at the other side the long discussion is going on that they can get Covid19 after Vaccination or it's for the long-term effect so everyone should take it such silly and dangerous messages regarding Covid19 vaccines are going viral day by day

#### Affordability:

Survey had asked them about the paid price for covid19 vaccination. In response 48.1% said that "below 200₹", 34.6% said 200-300 and 8.6% said more than 500.They had paid to get vaccine. 63.8% respondents afforded that paid price while 36.2 % were not.

#### Side Effects After Vaccination:

Finding reflects that the mostly observed side effects after COVID-19 vaccination were the fever (45%), tiredness (20.42%) and pain at the injection site (11%) and some were also reported that headache (10%) and nausea (9%) while 4% participants said that they don't observed any side effects. These reported side effects were not so severe or life threatening. It's also found that the people who are under 60 age groups they are more commonly experiences such symptoms after receiving second dose rather than the people from above the 60 age groups.



#### Factors affecting vaccination rate:

The factors which are mostly influencing the Covid19 vaccination rate are

The people from the poor economic background and Lower education level having the great refusal or hesitancy for the Covid19 vaccine. The Misinformation or fake news which have been daily circulating from the social media are also one of the causes for poor vaccination rate. However, the patients whose having History of vaccination hesitancy, already having health issues they are also are at higher risk of getting vaccination. General public having great Concerns about safety and efficacy of vaccine and feel uncomfortable to being amongst their society first to get vaccine. Opposition regarding vaccine, Lack of trust on the healthcare system and Covid19 vaccine and its distribution process These are some facts that are also affecting in some extent on the vaccination rate

#### Factors help to enhance vaccination rate:

To enhance the vaccination rate Before initiating the mass vaccination programmes or campaigns to build the trust or confidence regarding vaccination among the general public before people made a false statement or getting against them. Vaccine policy makers should Identify Factors that causes hesitancy among the general public. Healthcare systems or non-government organization (NGO's) must conduct the awareness programmes regarding Covid19 vaccination to reduce the vaccine hesitancy. Government should give proper and trustworthy guidelines through the clear and transparent words to the community so that the most of people might get it. To the more and effective vaccine acceptance by the people the policymakers must Identify the population who are at the high risk for refusal of vaccine. However, healthcare sectors and pharmacists also play a major role in this case, they should Provide proper guidance and by effective patient counselling the vaccination acceptance can be modify from low to high. Encourages community to take up the vaccine; motivation by the trustworthy community members would definitely increase the vaccine acceptance. Along with that the Covid19 vaccine should be at the low cost or free of cost with a high rate of efficacy and should be quickly and easily available in a every health sector or near to the society so that the it's got easily accessible by the general public. If make it mandatory to the person who goes out for the job purpose then also we can modify the vaccine acceptance. Healthcare systems or pharmacist and NGO's should go for multivisit discussion to know the general public concerns rather than single discussion to make the vaccine acceptance moderate to high or to reduce the vaccine refusal rate or hesitancy about vaccine

#### IV. Conclusion

General public have various types of knowledge, attitude, perception and concerns regarding COVID19 vaccine in India. To investigate that we had conducted this online survey; and by this study we have analysed that there is lack of confidence and trust regarding COVID19 vaccine among the general public in India. However, the most of public having the great concerns about the safety, toxicity and efficacy of the COVID19 vaccine. Before initiated the mass vaccination program: the Indian Government need to be focus on to create awareness regarding COVID19 vaccination to enhance the vaccination rate as well to reduce the vaccination refusal rate among the general public in India.

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