

Awareness of COVID 19 Vaccines Amongst General Population: A Cross Sectional Questionnaire Study

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Abstract

The recent spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its associated coronavirus disease has gripped the entire international community and caused widespread public health concerns. General populations need to be aware and prepared for tackling any impending infectious disease challenge as might be the case in the current outbreak of SARSCoV transmission and its associated coronavirus

disease, which can be life threatening to susceptible patients. Thus, the aim of this article is to provide a brief overview of the epidemiology, symptoms and routes of transmission of this novel infection. In addition, specific recommendations for general populations are suggested for screening, infection control strategies and management protocol.

Keywords: Doctor, Knowledge, Covid shield, COVAX in, Management, Vaccine

Introduction

The COVID-19 pandemic caused by the novel coronavirus, also known as SARS-CoV-2, has affected millions worldwide. There is no doubt that this global catastrophe has brought major economies across the globe to a screeching halt. In India as of April 2021, 1.2Cr have contracted the deadly disease & over 1.7L have succumbed to it. Additionally, India is now witnessing the second wave of COVID-19, especially in the states of Chhattisgarh, Maharashtra, Kerala & Delhi NCR and the mortality and morbidity rates have risen out of control. Epidemiological research is still ongoing, however it is largely been established that the mechanism of viral transmission through which the virus exits the reservoir host & enters the susceptible host is “Droplet Spread”. WHO says that - “The COVID-19 virus spreads between people who are in close contact with each other, typically within 1 metre (short-range). A person can be infected when aerosols or droplets containing the virus are inhaled or come directly into contact with the eyes, nose or mouth. The virus spreads readily in poorly ventilated and/or crowded indoor settings, where people tend to spend longer periods of time. This is because aerosols remain suspended in air or travel farther than 1 metre (long-range). Any situation in which people are in close proximity to one another for long periods of time increases the risk of transmission.”

In the absence of an effective antiviral, achieving herd immunity through vaccination is the only long term & cost-effective solution to the COVID-19 crisis. India is one of the few vaccine producing nations in the world. Here, three vaccines have been granted authorization for use by the Central Drugs Standard Control Organization (CDSCO). They are - Covishield® (AstraZeneca's

vaccine manufactured by Serum Institute of India), COVAX in® (manufactured by Bharat Biotech Limited) and Sputnik V (developed by Gamaleya Research Institute, Russia), which was granted emergency-use authorization by the Drugs Controller General of India (DCGI)¹. Albeit with voluntary participation, the phased vaccination drive in India commenced on 16th Jan 2021 and it involved vaccinating health workers and frontline workers. The 2nd phase of vaccination covering all citizens above the age of 45, has begun on 1st March 2021.² The USFDA has issued the first emergency use authorization for the Pfizer vaccine on December 11, 2020 for individuals ≥ 16 years of age, which is being the first vaccine against COVID-19.

Even with the nationwide deployment of the vaccination program, there are certain major roadblocks to alleviating the pandemic. The World Health Organization (WHO) has identified vaccine hesitancy as a leading global health threat^{4,5,6}. As per a recent survey, the COVID-19 vaccine acceptance rate among the healthcare workers stands at 79.3%⁷. Pegged at 29%, vaccine hesitancy is higher among the rest of the population. At this rate, it's forecasted that by the end of 2021, barely 30% of India's population would be inoculated⁸. A variety of reasons ranging from lack of awareness to misinformation/fake news spreading on social media to general distrust, etc. can be attributed to this glaring hesitancy.

To ameliorate the vaccine acceptance scenario, a concerted effort would be required at large in which the community could rise up to the challenge and play a pivotal role. In recent research it was concluded that the public is more likely to trust information they receive about the COVID-19 vaccine when that information comes from public health entities or health care

professional⁹. Doctors being a respected community of health care professionals in India, can promote vaccine awareness & build confidence among the people and provide them a nudge to get the COVID-19 vaccine. By getting vaccinated themselves, the doctors won't just immunize themselves from the life-threatening disease, but will also serve as a role model for the common populace.

Objective

Our study among the population is aimed at assessing their knowhow & awareness related to the COVID-19 vaccination drive in India.

Methodology

KAP study: A Knowledge, Attitudes and Practices survey is a standardized questionnaire in a structured manner providing quantitative and qualitative information targeting a specific population.

Study Design

A cross-sectional survey of knowledge, attitude and practices regarding COVID-19 vaccine among general population of Chhattisgarh (a state of India) was conducted online. To carry out this survey, a Google form

Table1: Questionnaire with options

was used, as this software allows the respondents to submit their answers and record them. A set of standardized questions were formatted in English language to gather information from respondents. This form was circulated via social media platforms. The time span of this online survey was from 1st April 2021 to 1st May 2021.

Participants

The target population and type of participants for this online research were general population. 500 peoples of Chhattisgarh were invited to assess the literacy skill, knowledge and awareness towards vaccination. Out of 500, 428 individuals participated and attempted the questionnaire.

Questionnaire

A list of questions associated with type, dose, route and particulars of COVID-19 vaccine was developed with multiple options. Table 1 depicts all the questions along with options quoted in the survey. At the outset, the name and Email id of participants were registered. In addition to this, an investigation of various demographic parameters like age, gender and email was included.

S. NO	Questions	Options
1	Which COVID-19 Vaccines are licensed in India	Covishield COVAX in Both of the above d. None of the above
2	Maximum protective immunity against COVID 19 Infection will be achieved after	1st dose of vaccination 2nd dose of vaccination 14 days after 1st dose of vaccination 14 days after 2nd dose of vaccination
3	Which group of people are eligible for taking	Children below 18 years of age

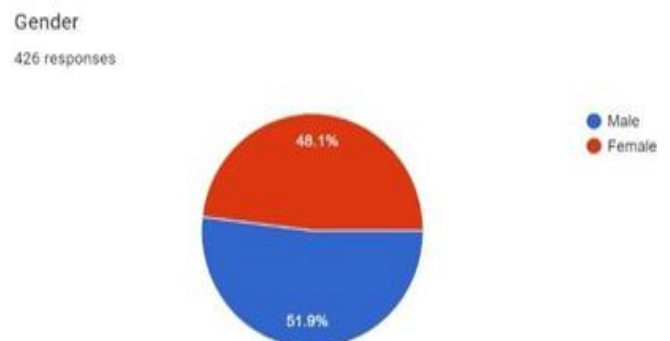
	COVID 19 vaccine	Covid patient received antibodies or plasma Person recovered from COVID 19 infection All of the above
4	Covishield is stored & transported at which temperature	a. +2 to +8 °C b.- 2 to - 8 °C c.10 – 12 °C d. 20 – 30 °C
5	Signs of severe allergic reaction after taking vaccine	Difficulty in breathing Rash all over the body Dizziness & weakness A fast heart beat All of the above
6	If patient is immunocompromised or having comorbidities like Cancer, Diabetes, Hypertension etc., can take the COVID-19 vaccine	Yes No Not sure Don't know
7	How much should be the time interval between two doses of COVAXIN	4-6 weeks 4-8 weeks Both of the above Don't know
8	How much should be the time interval between two doses of COVISHIELD	4-6 weeks 4-8 weeks 12-16 weeks 16-18 weeks
9	If a person is infected with COVID 19 infection after first dose of vaccine then the second dose of vaccine should be deferred by how many months	1 Month 2 Month 3 Month 4 Month
10	Are you willing to get COVID 19 vaccine even if you have to pay to get it.	Yes No Never Don't know
11	Which factor motivate you for taking COVID 19	Vaccine will be useful in protection against covid 19

	vaccine? (Choose multiple option)	infection It is available free of cost My health care professional/ doctor has recommended me It will help in irradiating covid 19 infection There is sufficient data regarding vaccine's safety & efficacy release by the government
12	Even after getting vaccine can you still get covid	Yes No Don't sure Don't know
13	How safe do you think a COVID-19 vaccine will be for you	Not at all safe A little safe Moderately safe Very safe
14	Do you recommend your family & friends to get vaccinated against COVID 19	Yes No Never Not sure
15	In which condition of below the vaccine should not be taken	Bleeding disorder or on blood thinner Immuno compromised or on medicine that affects immune system During pregnancy Anaphylactic or severe allergic reaction after 1st dose of vaccine

Result & discussion

a) Demographic characteristics

Initially, the contextual factors or variables like gender, age were reported. The findings revealed that out of 426 participants, 51.9% were male and 48.1% were females. Among the entrants, 41.7% of the participants were belong to 18-27 years age group where as 28.1%,18.7%,8.9%,2.6% were belong to 28-37 years,38-47 years,48-57 years & above 58 years respectively.



b) Knowledge based

We received 418 & above responses from each question out of 428. This indicates active participation and the keen interest of general population regarding the

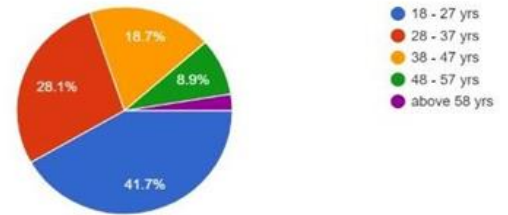
awareness of the ongoing global pandemic vaccine. 15 questions were related to knowledge of COVID-19 vaccine in this survey and the results obtained were appreciable. More than 50% of respondents were correct in 10 questions.

Around 428(86.2%) participants have information that Covishield were administered under Indian Government. 73.8% participants were aware of maximum protective immunity against COVID 19 infection will be achieved after 14 days after 2nd dose of vaccination. 77.8% of people were aware that all group of people like children below 18 years of age, persons who recovered from COVID 19 infection & COVID patient received antibodies from plasma were eligible for COVID 19 vaccine. 77.5% were informed that COVIDSHIELD is stored & transported to +2-+8degree Celsius .49.6% were aware that signs of severe allergic reaction after taking vaccine were dizziness & weakness whereas 41.2% of participants think that vaccination causes breathing difficulty, rashes, dizziness, weakness & tachycardia. 71.5% of participants aware that COVID 19 vaccines were also safe for immunocompromised individuals. 55.6% were informed that the time interval between two doses of COVAXIN were 4-8 weeks . Among 73.9% of participants aware about the time interval between two doses of COVIDSHIELD were 12-16 weeks. 74.6% individuals were concerned about the after first dose administration if a person is infected then the second dose of vaccine should be delayed for 3 months. 79.9% participants were willing to get COVID 19 vaccine even if she/he have to pay to get it. About 78.9% of participants were motivated for taking vaccination due to their protection against covid 19 infection. 79.4% participants were get infected after vaccination. 64.4% people think

that COVID 19 vaccines were moderately safe. 93% participants also recommend their family & friends to get vaccinated against COVID 19. 49.9% of participants think that the contraindication of the vaccine were anaphylactic or severe allergic reaction after 1st dose.

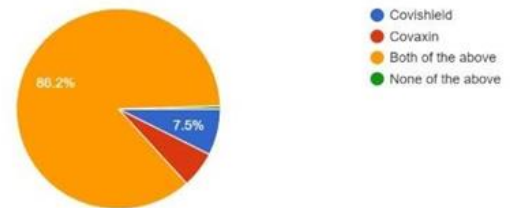
Age

427 responses



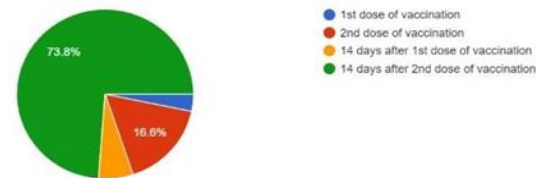
1. Which COVID-19 Vaccines are licensed in India?

428 responses



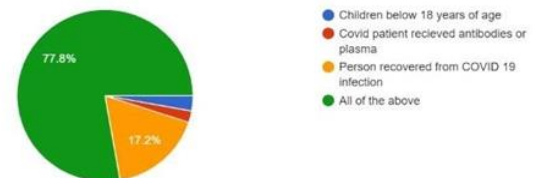
2. Maximum protective immunity against COVID 19 Infection will be achieved after?

428 responses



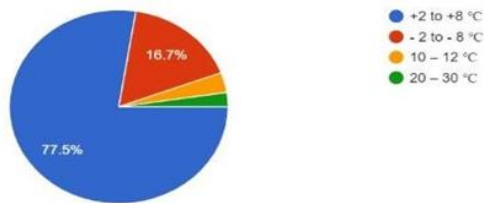
3. Which group of people are eligible for taking COVID 19 vaccine?

418 responses



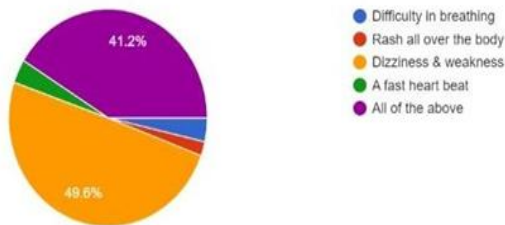
4. Covishield is stored & transported at which temperature?

418 responses



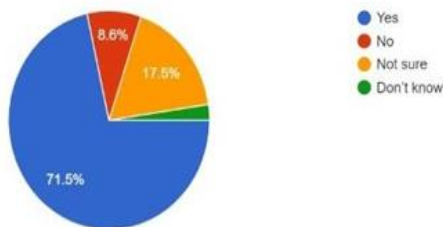
5. Signs of severe allergic reaction after taking vaccine

425 responses



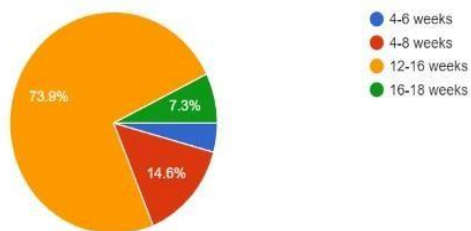
6. If patient is immunocompromised or having comorbidities like Cancer, Diabetes, Hypertension etc, can take the COVID-19 vaccine?

428 responses



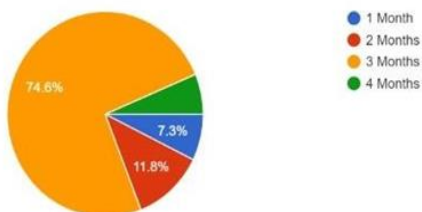
8. How much should be the time interval between two doses of COVISHIELD?

426 responses



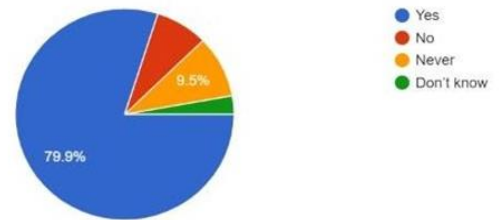
9. If a person is infected with COVID 19 infection after first dose of vaccine then the second dose of vaccine should be deferred by how many months?

425 responses



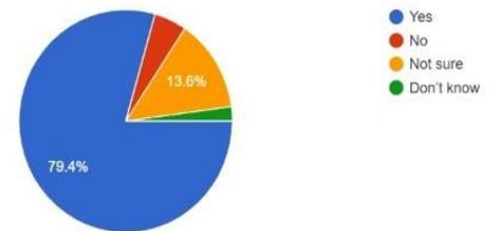
10. Are you willing to get COVID 19 vaccine even if you have to pay to get it.

423 responses



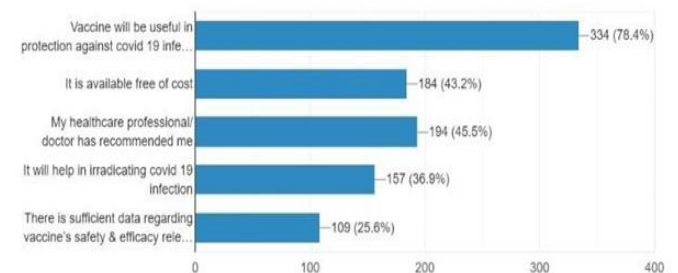
12. Even after getting vaccine can you still get covid?

428 responses



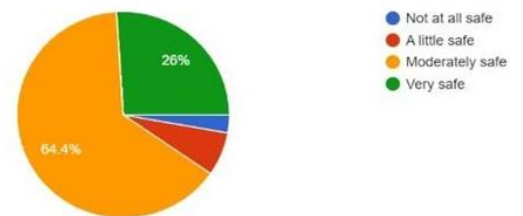
11. Which factor motivate you for taking COVID 19 vaccine? (Choose multiple option)

426 responses



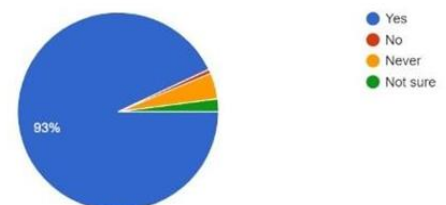
13. How safe do you think a COVID-19 vaccine will be for you?

427 responses



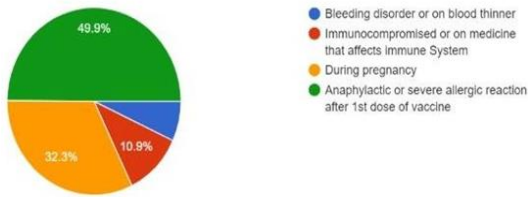
14. Do you recommend your family & friends to get vaccinated against COVID 19?

428 responses



15. In which condition of below the vaccine should not be taken

421 responses



Conclusion

The present study conducted on 500 general populations of Chhattisgarh to assess the knowledge regarding vaccine revealed that male participant was slightly higher in number. Significant response was from 18-27 age group respondents and the majority was of general populations. Lack of knowledge was evident in few instances but 60% of the targeted population recorded accurate answers. In a nutshell, the survey yielded beneficial, informative and productive results involving active participation, developing interest, or a strategy to build literacy and make health care professional saw are regarding the COVID 19 vaccine.

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