



## COVID – 19 VACCINATION AWARENESS AND PERCEPTION AMONG HEALTHCARE WORKERS IN A TERTIARY HOSPITAL IN THIRUVANANTHAPURAM DURING IT'S INITIAL PHASE

### Community Medicine

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### ABSTRACT

**Background:** The Novel coronavirus infection spreads throughout the world and remains an international threat. The development of various vaccines has paved the way for the prevention of Covid-19 infection. Healthcare workers are the most involved in the prevention of the pandemic. So that in the initial phase of Covid-19 vaccination, Healthcare workers were given priority. This study was done to assess the awareness and perception of covid-19 vaccination among healthcare workers in the initial phase of the covid-19 vaccination program. **Objective:** To assess the awareness and perceptions regarding Covid-19 vaccination among healthcare workers at the initial phase of vaccination. **Methods:** Cross-sectional study was conducted among the healthcare workers working in a Tertiary care Hospital in Thiruvananthapuram. Data was collected from 432 participants who came for vaccination using a semi-structured questionnaire. **Results:** Among 432 study participants, 86.1% were aware of the vaccine dosage and schedule but 13.9% do not know about it. Out of those who are aware 76.62% got information from the news & social media. About 88.12% of participants have taken the vaccine to develop immunity. Among the participants, 40.45% had concern regarding the vaccine side effects. 71.3% reported that they will continue to follow the Covid-19 preventive measures strictly, over after the vaccination. **Conclusion:** The majority of the Healthcare workers were aware of Covid -19 vaccination. Even though vaccinated 13.9% were not aware of the vaccine dosage and schedule. Healthcare workers should educate about the same. Also, raise awareness among those vaccinated individuals to follow strict preventive measures for preventing the infection. Concerns regarding the Covid-19 vaccination among healthcare workers need to be addressed.

### KEYWORDS

Covid-19, Healthcare workers, vaccination, Awareness, perception.

### INTRODUCTION

The novel coronavirus disease spreads across the world and become a major public health concern. The coronavirus disease has affected 229 countries and territories around the world(1). The development of various vaccines against the coronavirus paved the way for the prevention of Covid-19 infections. India began the administration of vaccination on 16<sup>th</sup> January 2021(2). India has administered over 2.19 billion doses overall including first and second doses as of December 2022(3).

During the initial phase of vaccination healthcare workers were given priority. Healthcare workers represent the guidance and the trusted source of information on the vaccine for the general population. They can shield against misleading and confusing information(4). For the present study, the covid vaccination in the tertiary care hospital was started on 18<sup>th</sup> January. The initial phase of vaccination was given to healthcare workers including Doctors, nurses & paramedical staff. The Covishield vaccine was administered from the institution. Currently, all healthcare workers working in the hospital were vaccinated with both doses.

Healthcare workers provide a major role in the prevention of Covid-19 disease and are more susceptible to the infection. The commonest reasons for the low perception regarding the vaccination were insufficient knowledge about vaccine safety, concern about vaccine trials, and effectiveness in the population. Healthcare workers help to bridge the gap and lacunae regarding vaccination by providing the needed reassurance(5).

Hence healthcare workers must have an unbiased perception & adequate awareness regarding Covid-19 vaccination(6). The purpose of this study is to assess the awareness and perceptions regarding Covid-19 vaccination among healthcare workers at the initial phase of the vaccination. The most helpful way of controlling Covid-19 could be universal vaccination to achieve herd immunity.

### MATERIALS AND METHODS

An institution-based cross-sectional study was conducted in a tertiary

hospital, in Thiruvananthapuram. The study was conducted among the healthcare workers which include doctors, nurses, paramedical staff, etc, who got vaccinated from Covid vaccination centers (CVCs) in the hospital. The beginning phase of the vaccine administration period (Jan - Feb 2021) has been taken for the study. 432 healthcare workers who were working in the hospital were recruited using random sampling method. On the day of vaccination, the data was collected using a semi-structured questionnaire which includes sociodemographic details, questions on perception and awareness, concern about vaccination, and preventive measures after vaccination.

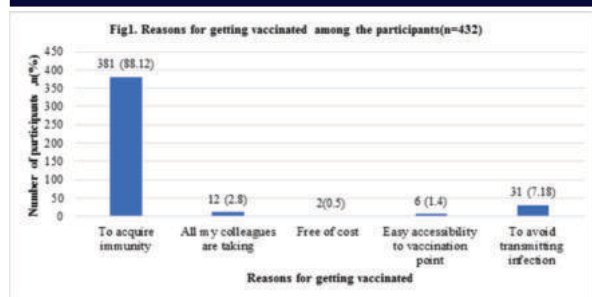
Also, those who were coming for the vaccination were counseled to take both doses without delay. The collected data were entered in Microsoft excel and analyzed using SPSS version 26. Categorical variables were expressed in terms of percentages.

### RESULTS AND DISCUSSION

Among the 432 participants, all got vaccinated with at least one dose. 298 (68.98%) females and 134 (31.02%) males were included in the study. Table 1 depicts the sociodemographic characteristics of the participants. Most of the participants were in the age group of 30-40 years. 77.3% of the participants belonged to the Hindu religion.

372 (86.1%) of the participants were aware of the Covid-19 vaccination dose, route, schedule, events after the vaccination, etc. (Table 2). 76.62% got information from the news & social media. Through the Covid-19 vaccination, 323 (74.76%) had a perception that the pandemic will bring an end. Even though the vaccination was taken by the participants 309 (71.5%) believed that getting exposed to Covid-19 infection naturally is safer for the immune system than being exposed to the virus through vaccination. But 28.5 % of participants were vaccinated against covid because it is the safest method to protect oneself from infection.

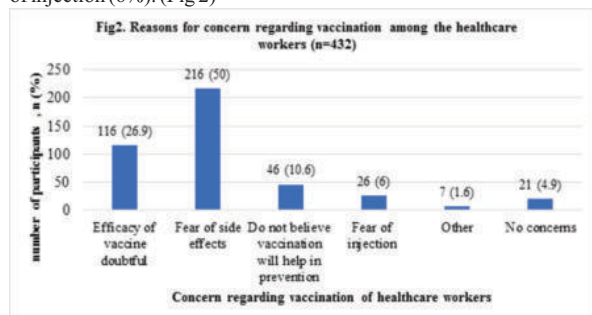
Fig 1 describes the reasons for getting vaccinated among the participants. Most of them (88.12%) were get vaccinated to acquire immunity. 31(7.18%) were vaccinated to avoid the transmission of Covid-19 infection.



**Table1. Sociodemographic characteristics of the study participants (n=432)**

SL no:	Characteristics	Frequency (n)	Percentage (%)
1	Age		
	20-30	96	22.2
	30-40	148	34.3
	40-50	105	24.3
	> 50	83	19.2
2	Gender		
	Male	134	31.02
	Female	298	68.98
3	Religion		
	Hindu	334	77.3
	Christian	54	12.5
	Muslim	44	10.2
4	Occupation		
	Doctors	68	15.7
	Nursing staff and supervisors	102	23.6
	Laboratory workers	72	16.7
	Paramedical staff	114	26.4
	Others (attender, security, cleaning staff, etc.)	76	17.6

The reason for concern regarding the vaccination was fear of side effects (50%), doubt of the efficacy of the vaccine (26.9%), not believing in complete prevention due to vaccination (10.6%), and fear of injection (6%). (Fig 2)



**Table 2. Responses of awareness and perception towards Covid-19 vaccination among the participants (n=432)**

Sl no:	QUESTIONS	RESPONSES	
		Yes n (%)	No n (%)
1	Awareness of Covid-19 vaccination (dose, route, schedule, events after vaccination, etc)	372 (86.1)	60 (13.9)
2	Exposure to COVID-19 infection naturally is safer for the immune system than being exposed through vaccination	309 (71.5)	123 (28.5)
3	COVID-19 vaccination will bring an end to this pandemic	323 (74.76)	109 (25.24)
4	Follow preventive measures (face mask, hand washing, etc) after taking the vaccination	308 (71.3)	124 (28.7)
5	The belief of being protected from COVID-19 infection after vaccination	305 (70.6)	127 (29.4)
6	Advice others for taking covid-19 vaccination	424 (98.1)	8 (1.9)

Our survey was conducted during the initial phase of Covid-19 vaccination, focusing on healthcare workers. In a cross-sectional survey of acceptance and concern about Covid -19 vaccination in Kerala, Anil et al reveal a good level of acceptance among the

population(7). The systematic review of healthcare workers' attitudes & relative factors toward covid vaccination by Li et al found that acceptance of vaccines among healthcare workers varied widely in different countries & vaccine hesitancy was still common(4). In the current study, 86.1 % were aware of the Covid-19 Vaccination & majority (88.12%) were getting vaccinated to acquire immunity.

Another cross-sectional study done by Ciardi et al found that several factors like gender, age, race, etc were significantly associated with the vaccine attitude among healthcare workers(6). Studies showed concern regarding the vaccine side effects and effectiveness of vaccination are the major barriers to vaccine acceptance(8)(9). The majority of healthcare workers got information regarding the covid vaccination from the news and social media. In a cross-sectional study conducted by Dalky et al, the majority of healthcare professionals had updated information about COVID-19 modes of transmission, risks of contamination, high-risk groups, etc(10). Also, the present study shows the majority of healthcare workers were aware of the covid vaccination.

Major factors for concern about the vaccine among the participants in the current study were fear of side effects, doubt in the efficacy of the vaccine, and not believing that the vaccine helps in the complete prevention of the pandemic. Several studies showed vaccine efficacy, vaccine safety, potential side effects, etc are the reasons for vaccine hesitancy—(11)(12).71.3% of participants in our study reported that they will continue to follow the Covid-19 preventive measures strictly, after the vaccination. The Covid-19 preventive measures should continue even though people get vaccinated(13).

**CONCLUSION**

Among the healthcare workers, 13.9% do not know the details regarding vaccine dosage and schedule and they should educate about the same. The concerns regarding vaccination among healthcare workers need to be addressed. Raise awareness among those vaccinated people to follow strict preventive measures so that the infection can be prevented.

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