RESEARCH ARTICLE

Awareness of health care workers regarding COVID-19 vaccine in a tertiary care hospital—a knowledge, attitude, and practice study


Department of Pharmacology, Hassan Institute of Medical Sciences, Hassan, Karnataka, India

Correspondence to: Karthik V, E-mail: joykarthik03@gmail.com

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ABSTRACT

Background: Severe acute respiratory syndrome (SARS) coronavirus-2-novel coronavirus termed as COVID 19 is a major outbreak which was deleterious globally created a rapid cases of pulmonary infectious disease that caused the SARS. Building up confidence in vaccination depends on the interaction between public and doctors. Attitude toward usage of vaccination by healthcare workers (HCWs) is a major factor that is associated with general public acceptance of vaccination, fidelity to schedules, and devoid of hesitation/aversion. In addition, vaccinated HCWs also have a perceptible effect of decisiveness in general public to take a vaccine. Aims and Objectives: To understand the knowledge, attitude and practices on COVID vaccine among HCWs. Materials and Methods: This is a hospital-based, observational cross-sectional study done in Hassan Institute of Medical Sciences, Teaching hospital, Hassan. A sample of 340 HCWs who have been vaccinated 1st dose of inactivated COVID Vaccine was taken up for the study. A pre-designed questionnaire was prepared and given to all the HCWs in the observation period of 30 min after vaccination. The questionnaire had 13 questions, and the data were collected and analyzed. Data were analyzed by descriptive statistical analysis. Results: This study was done in a district hospital, Hassan, Karnataka with a sample size of 340 HCWs participated in the study and completed the study questionnaire, out of which 146 men (43.4%) and 190 women (56.54%). Willingness to take the vaccine is 96%. 93.4% of HCWs encourage others to take vaccine. Our institution arranged a adverse events following immunization reporting and monitoring team management and 93.9% of the HCWs knew where to report if any adverse events occur in the observation period of 30 min after vaccination and also after going back to their respective homes through a telephone number and also this will help knowing the and acceptability of the vaccines. Conclusion: HCWs play an influential role in general public vaccination program. The information from this study will help to gain more knowledge and also allow the general public to future vaccination acceptability. The approach of HCWs might help in creating awareness and preventing false information about COVID vaccine among general public.

KEY WORDS: Inactivated COVID Vaccine; COVID 19; Healthcare Worker; Vaccination; Knowledge; Attitude and Practices
pandemic. Knowing that social spacing and isolation may slow the infectiveness of the virus and flatten the pandemic curve; it may not be ample to completely stop the spread of COVID-19, herd immunity gained by infection or vaccination will need to be well known within the general public.[1]

In this kind of situation, there are almost 200 COVID-19 vaccines which are in developmental phase worldwide. Readiness of COVID-19 vaccine when it becomes available has considerably varied across countries over the course of pandemic. Recently, vaccine started to roll out all over the country which were of two brands one is COVAXIN and the other COVISHIELD which are manufactured in India.[2]

Building up confidence in vaccination depends on the interaction between public and doctors. Attitude toward usage of vaccination by healthcare workers (HCWs) is a major factor that is associated with general public acceptance of vaccination, fidelity to schedules and devoid of hesitation/aversion. In addition, vaccinated HCWs also have a perceptible effect of decisiveness in general public to take a vaccine.[3]

Aim of the Study
The aim of this study is to evaluate knowledge and attitudes toward vaccination among HCWs regarding COVID vaccines from a tertiary care hospital.

MATERIALS AND METHODS

Study Site and Design
This is a hospital-based, Observational cross-sectional study done in Hassan Institute of Medical Sciences, Teaching hospital, Hassan, Karnataka. A sample size of 340 HCWs who have been vaccinated 1st dose of COVID Vaccine were taken in the study. By calculating number of HCWs vaccinated 1st dose of COVID Vaccine which is 70% (out of 2098 HCW).

By applying the formula, sample size = 4 × pq/d² = 4 × 70 × 30/25 = 336.

A pre-designed questionnaire was prepared and given to all the HCWs during the observation period of 30 min after vaccination which had 13 questions and the data were collected and analyzed by descriptive statistical method. The questionnaire contained demographic details and questions based on the knowledge about vaccine, attitude, and practices toward the vaccine. The study is having the following:

Inclusion Criteria
• HCWs vaccinated 1st dose of inactivated COVID vaccines
• Aged 18–50 years
• Willing for Written and Informed consent.

Exclusion Criteria
• Not willing for written consent
• Not vaccinated.

RESULTS
A sample size of 340 HCWs participated in the study and completed the study questionnaire, out of which 146 men (43.4%) and 190 women (56.54%) [Table 1]. In this era of social media and internet, the source of information about vaccines to the HCWs which was 63.4% [Figure 1]. Willingness to take the vaccine is 96%. They believed by taking vaccination will help in ending the pandemic (47.1%) and also protect the community (28.8%) [Figure 2]. When asked whether COVID 19 vaccines completely protect against the disease-47.7% had a neutral opinion and 35.5% agreed to it [Figure 3]. Mind-set of the HCWs during the 1st 30 min post vaccination is normal 69.2% [Figure 4]. The data representing information on few of the questions regarding vaccine have been tabulated and have been summarized in

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</table>

HCWs: Healthcare workers

Figure 1: How did you get to know about COVID 19 vaccine (Source of Information)
Table 2. Most of them know where it is being manufactured that is India (96%). 87.9% of HCWs have knowledge about adverse events following immunization and considered treatable in 95.9% of HCWs. The very minimal HCWs were being anxious 7.6%. Vaccine was administered in aseptic conditions and protocol followed administering is in a systematic manner 88.8% and 68.9%, respectively. 93.4% of HCWs encourage others to take vaccine. This is a district hospital in Hassan, Karnataka arranged adverse events following immunization team management and 93.9% of the HCWs knew where to report if any adverse events occur so that we get to know the efficacy and acceptability of the vaccines.

DISCUSSION

About 340 HCWs participated in the study and completed the study questionnaire, out of which 146 men (43.4%) and 190 women (56.54%). In this era of social media and internet, the source of information about vaccines to the HCWs which was 63.4%. Willingness to take the vaccine is 96%. They believed by taking vaccination will help in ending the pandemic (47.1%) and also protect the community (28.8%). When asked whether COVID 19 vaccines completely protect against the disease-47.7% had a neutral opinion and 35.5% agreed to it. Mind-set of the HCWs during the 1st 30 min post vaccination is normal 69.2%. The data representing information on few of the questions regarding vaccine have been tabulated and have been summarized in Table 2. Most of them know where it is being manufactured that is India (96%). 87.9% of HCWs have knowledge about adverse events following immunization and considered treatable in 95.9% of HCWs. The very minimal HCWs were being anxious 7.6%. Vaccine was administered in aseptic conditions and protocol followed administering is in a systematic manner 88.8% and 68.9%, respectively. 93.4% of HCWs encourage others to take vaccine.

The present scenario of COVID 19 in the world is making a huge impact to the health system to decrease the trend of the disease and to control the pandemic. Bringing new measures to overcome this health apocalypse is our primary task. Many measures are being done in the past 1 and a ½ years tells us that vaccine can be a potential tool to overcome this disease. Hence, knowing the acceptability and willingness to take the vaccines becomes an important factor for the better usage of vaccines. Some studies have mentioned like in Dodd et al. concluded that attitudes toward COVID-19 vaccine appear to be more positive than reported in France in late March, which might in part reflect greater confidence in the government.[1] Lurie et al.[2] mentioned that developing a vaccine quickly requires a new pandemic protocol, with a prompt start and many steps executed in parallel before.
confirming a result of another step, hence might elevate financial risk. Since China confirmed the outbreak of disease in Wuhan the vaccine procurement was necessary and needed a fast production.\cite{4-7} Al-Marshoudi et al. stated that 57% of their sample population were willing to take the vaccine against COVID-19 as soon as they were procured and 59.3% would advise their family and friends to take the vaccine.\cite{45}

**Strengths of the Study**

- Since the start of vaccination drive subjects were not aware about the particular vaccine and required more clarity and information for the better acceptance to the public
- Validated questionnaire was given to the HCWs and was given to them during the hospital stay after vaccination.

**Limitations of the Study**

- Only the HCWs were included and the public awareness about the vaccine was not elucidated
- It was a single centric study; more number of subjects were not evaluated.

**CONCLUSION**

HCWs play an influential role in general public vaccination program. The information from this study will help to gain more knowledge and also allow the general public to future vaccination acceptability. The approach of HCWs might help in creating awareness and preventing false information about COVID vaccine among general public.

**REFERENCES**


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