

## PERCEPTION TOWARDS THE COVID-19 VACCINE AMONG THE PARAMEDICAL STAFFS

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**Abstract. Introduction.** Broad access to efficacious immunizations is important for mitigating the COVID-19 pandemic. Healthcare personnel, particularly paramedical workers, may be more susceptible to infection during the covid pandemic due to a variety of causes. The purpose of this research is to assess paramedical staff members' opinions on the COVID-19 vaccine. **Methods and material.** A research study was conducted on paramedical personnel at A B Shetty Memorial Institute of Dental Sciences in Mangalore, India, using an online survey and SPSS 21 for data analysis. The survey included questions about vaccination knowledge, type, and dosage based on literature and international recommendations. **Results.** The average age of the 61 participants in the research was  $45.23 \pm 9.66$  years, with 43 females and 18 men. While all research participants knew that the COVID-19 vaccine is accessible in India, only 59% were aware of the range of vaccines that are developed and produced in India. Of those surveyed, 42.6% felt comfortable taking the COVID-19 vaccination made in the nation. Participants assessed their likelihood of contracting the illness even after immunization as high (24.6%) and low (39.3%). Of those who have received COVID-19 immunization, 55.7% believe that adverse effects might occur. **Conclusions.** The World Health Organisation (WHO) is lowering infection rates and developing a COVID-19 vaccine. Paramedical Staff who worked in the hospital are more vulnerable because of patient interaction and insufficient training on infection prevention.

**Key words:** COVID-19, vaccine, paramedical, dosage, infection

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### INTRODUCTION

Coronavirus are enclosed, positive, single-stranded large RNA viruses that may infect a wide range of animals, including humans [1]. The Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that is the cause of the 2019 coro-

navirus epidemic (COVID-19) was first discovered in Wuhan, China in December 2019. The disease is caused by severe acute respiratory syndrome. The new coronavirus spread quickly worldwide in less than a month after it first appeared. On March 11, 2020, the World Health Organisation (WHO) proclaimed COVID-19 a worldwide epidemic. On De-

ember 31, 2019, Wuhan, Hubei Province, China, reported discovering odd pneumonia cases. On January 7, 2020, the causative agent, a new coronavirus known as 2019-nCoV, was identified. The World Health Organisation designated the illness as COVID-19 [2]. Early in November 2021, 251,788,329 verified instances of 5,077,907 fatalities from COVID-19 were reported to WHO [3].

Currently spearheading an international initiative centered on illness prevention, early identification, and treatment is the World Health Organisation (WHO). According to global health agencies, the ultimate objective is to create a COVID-19 vaccine in tandem with continuing attempts to flatten the infection curve. Immunization is a useful strategy for preventing infection and reducing death from influenza and other infectious illnesses. During an outbreak, hospital staff members are a particularly susceptible population. Healthcare workers may be more susceptible to infection during the pandemic for several reasons, such as continuous patient contact and inadequate infection control training [4, 5]. Therefore, the purpose of the study was to assess paramedical staff members' perceptions of the COVID-19 vaccine.

## MATERIALS AND METHODS

The paramedical personnel at the A B Shetty Memorial Institute of Dental Sciences in Mangalore, India, was the subject of a research. The study was of 2 months duration conducted among paramedical staff. To gather the data, online google survey form was created in English language. A WhatsApp chat attachment was sent out that included a short link to the online questionnaire, a brief introduction, the voluntary nature of participation, and an assurance of anonymity and confidentiality.

After acknowledging the study's purpose and giving their consent, participants were instructed to fill out the questionnaire by clicking the link. In total, 61 paramedical staff members took part in the research. Ten multiple-choice questions that fed into the Google form internally made up the questionnaire.

The questions, which included information about the type, dosage, and understanding of the vaccine, were created in English following a study of pertinent literature and international standards. indications and side effects following vaccination, as well as attitude towards the shot.

## RESULTS

The study included 61 participants, all of whom were Mangalore residents, with a mean age of 45.23 ±

9.66. There were 43 females and 18 men. Of the research participants, 45.9% had completed their high school education, followed by 19% who had earned a bachelor's degree and 21.3% who had not completed their high school education. Of the participants, 19.7% had between 21 and 30 years of experience. 18% of the participants had experience ranging from 0 to 5 years, 13.1% from 11 to 15 years, 11.5% from 6 to 10 years and 31 to 35 years, 4.9% from 16 to 20 years, and 1.6% from more than 36 years. 29.5% of participants identified as technicians, followed by attendees (26.2%), staff nurses (6.6%), clinical dental assistants (18%), sweepers (8.2%), and office assistants (4.9%) (Table 1).

**Table 1.** Sociodemographic variables of the participants

Mean age (years)		45.23 ± 9.66
Gender – N(%)	Male	18 (29.5)
	Female	43 (70.5)
	Total	61 (100)
Place of Residence – N(%)	Mangalore	60 (98.4)
	Kasargod	01 (1.6)
	Total	61 (100)
Educational Qualification – N(%)	Primary school	13 (21.3)
	High School	28 (45.9)
	Graduation	19 (31.1)
	Postgraduation	1 (1.6)
	Total	61 (100)
Designation	Attender	16 (26.2)
	Clinical Dental Assistant	4 (6.6)
	Technician	18 (29.5)
	Staff Nurse	4 (6.6)
	Office Assistant	3 (4.9)
	Receptionist	11 (18.0)
	Sweeper	5 (8.2)
	Total	61 (100)
Years of Work Experience	0-5 years	11 (18.0)
	6-10 years	07 (11.5)
	11-15 years	08 (13.1)
	16-20 years	03 (4.9)
	21-25 years	12 (19.7)
	26-30 years	12 (19.7)
	31-35 years	07 (11.5)
	36 years and above	01 (1.6)
	Total	61 (100)

While all research participants knew that the COVID-19 vaccine is accessible in India, only 59% were aware of the range of vaccines that are developed and produced in India. Out of the participants, 57.4% were unaware of the various vaccinations available in India, whereas 24.6% were aware of

the Covishield vaccine's availability, and 18% were aware of Covaxin's availability in India. A maximum of 91.8% of participants had been vaccinated against COVID-19.

Furthermore, 96.7% of people said they would be ready to advise family members to get the vaccination. All trial participants (100%) are informed that the immunization requires repeated doses. Just 4.9% of the study population expressed confidence in utiliz-

ing COVID-19 vaccinations made outside their country, compared to 42.6% who felt secure using the vaccine made domestically. Participants assessed their likelihood of contracting the illness even after immunization as high (24.6%) and low (39.3%). Over two-thirds of the trial participants (55.7%) believed that COVID-19 immunization may cause negative effects. A succinct overview of the findings is provided in (Table 2).

**Table 2.** Summary of responses to questions

Q. No.	Question	Response	Frequency	Percent
1	Are you aware that a vaccine is available for COVID-19 in India?	Yes	61	100.0
		Total	61	100
2	Are you aware that several vaccines are developed and manufactured in India?	No	16	26.2
		Yes	36	59.0
		Not sure	9	14.8
		Total	61	100.0
3	If yes, what are the vaccines available in India according to you till date?	Covaxin	11	18.0
		Covishield	15	24.6
		Don't know	35	57.4
		Total	61	100.0
4	Rate your confidence level in using COVID-19 vaccine manufactured in India	Highly confident	18	29.5
		Confident	26	42.6
		Neutral	10	16.4
		Not confident	3	4.9
		Don't know	4	6.6
		Total	61	100.0
5	Rate your confidence in using COVID-19 vaccine manufactured in a foreign country	Highly confident	3	4.9
		Confident	7	11.5
		Neutral	19	31.1
		Not confident	21	34.4
		Don't know	11	18.0
		Total	61	100.0
6	Have you taken the COVID-19 vaccine?	No	5	8.2
		Yes	56	91.8
		Total	61	100.0
7	Will you recommend COVID-19 vaccination to your family members?	No	1	1.6
		Yes	59	96.7
		Maybe	1	1.6
		Total	61	100.0
8	Are you aware that the COVID-19 vaccine is administered in multiple doses?	Yes	61	100.0
		Total	61	100
9	According to you, the chances of getting COVID-19 even after getting vaccinated is	Very high	3	4.9
		High	15	24.6
		Less	24	39.3
		Very less	17	27.9
		Don't know	2	3.3
		Total	61	100.0
10	Do you think that there are possible side effects of COVID-19 vaccination?	No	34	55.7
		Yes	13	21.3
		Maybe	13	21.3
		Don't know	1	1.6
		Total	61	100.0

## DISCUSSION

Since dental procedures create aerosols and splatters, dental surgeons and paramedical staff, like other healthcare professionals, are at substantial risk of catching the virus from their patients. Therefore, during the pandemic, dentists and paramedical staff members should follow normal protocols for personal safety and measures with all patients [6]. The effectiveness of vaccination depends on both the vaccine's own efficacious immunization as well as a high level of societal acceptability and a high vaccination rate [7, 8]. To significantly lower COVID-19-related morbidity and death, a rapid and widespread public rollout of a safe and effective vaccination is required [10].

More cause for concern than the virus itself is fear, which is a major factor in opposition to COVID-19 immunization. It is imperative that healthcare professionals, including paramedical workers, actively participate in providing the public with proper immunization information [11, 12]. The decision to provide the COVID-19 vaccination to the broader public was predicted by paramedical personnel [13].

A successful vaccination program among paramedical staff members can inspire others and have a favorable impact on immunization rates in the general public. Different kinds of HCWs have varying levels of knowledge and awareness of COVID-19.

The purpose of this study, which recruited 61 paramedical staff members, was to determine how they felt about the COVID-19 vaccination. A ten-question multiple-choice online survey was created and distributed to each participant. Our poll offers a summary of the paramedical staff members' knowledge and opinions on the COVID-19 vaccine. It was discovered in this institutional study that while paramedical staff members are adequately informed about the availability of COVID-19 vaccines in India, only 59% of the population was aware of the different vaccine manufacturers in India, and 57.4% of the participants were unaware that different vaccines were available in India. When asked about the different vaccine companies that were available, 24.6% of the participants knew about the vaccination.

Out of the participants, 24.6% were aware of the COVISHIELD vaccine, and 18% were aware of COVAXIN, when asked about the different vaccine firms that were available. Roughly 91.8% of individuals accepted the vaccination and were vaccinated; of those, 96.7% were willing to suggest COVID-19 to family members. Over 13,426 respondents worldwide in 19 countries indicated they would accept the COVID-19 vaccination, according to a global poll on the vaccine's acceptability by Lazarus et al [14].

The acceptance rates are quite close to those of our study, where 91.8% of the study group accepted and received vaccinations. Similarly, 57.6% of US participants in a comparable research conducted in April 2020 with a study population of 911 expressed a willingness to receive a vaccination [15]. Our current survey's results are inconsistent with a similarly sized study that was carried out among 5000 participants in the US population in May 2020 and found that 31.1% of them had no intention of being vaccinated. According to a survey among Saudi Arabian healthcare professionals, 64.7% of respondents agreed that the COVID-19 vaccination should be accepted [16].

The global COVID-19 pandemic presented significant challenges, particularly for emerging nations like India. As a result, there is an unprecedented need for global coordination, solidarity, and national awareness [17]. Therefore, there would be more drive and incentive for the general public to embrace the vaccination in addition to the attitude, knowledge, and perspective of paramedical staff regarding the vaccine.

## CONCLUSION

Dental surgeons and paramedical personnel are particularly vulnerable to COVID-19 because of operations that produce aerosols and splatters. Vaccine efficacy, societal acceptance, and vaccination rate all influence how successful immunisation is. Rapid public adoption is required to lower mortality and morbidity. For developing countries like India, national consciousness, solidarity, and global cooperation are essential.

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