

ORIGINAL RESEARCH

Perception of COVID 19 vaccination in rural population of Maharashtra: After one year of vaccine introduction

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ABSTRACT

Background: Coronavirus disease 2019 (COVID-19) has rapidly become a global pandemic taking more than 1.7 million lives. Many developed countries had started their vaccination drive, India is not far behind but still not much is known about the willingness to get vaccinated in India.¹ Due to the COVID-19 pandemic, the world faced a novel infectious disease, for which there currently is no treatment or herd immunity². The pandemic poses a serious threat to our health and well-being (WHO, 2020) and researchers are racing to develop and test vaccines against COVID-19 (Callaway, 2020).³

Aim: To determine Perception of covid 19 vaccination in rural population of Maharashtra: after one year of vaccine introduction.

Objectives: 1.To study Perception of covid 19 vaccination in rural population of Maharashtra after one year of vaccine introduction. 2. To study the socio-demographic profile with comorbid status of study participants.

Material and Methods: A cross-sectional study carried out among 189 peoples coming to vaccination center as per inclusion & exclusion criteria in SRTRGMC, Ambajogai city (Maharashtra) from May 2022 to June 2022.

Results and Conclusion: Out of total 189 study participants majority of the participants in the study were from age group 30-50 years i.e. 89 (47.5%) and least were >50 years of age group i.e.36 (19.05%), Male and female participants were 96 (50.80%) and 93 (49.20%) respectively, 146 (77.25%) were Married, 174 (92.07%) were Hindu by religion, 115 (60.86%) were from Nuclear family, and 80 (42.32 %) were belonging to Class III Socio-economic status, Least i.e. 4.24% participants were having comorbidity. Over all perception of the participants in this study towards covid 19 vaccines was positive with sound knowledge regarding the covid 19 vaccines.

Keywords: COVID-19, Vaccination, Rural, Maharashtra.

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) has rapidly become a global pandemic taking more than 1.7 million lives. Many developed countries had started their vaccination drive, India is not far behind but still not much is known about the willingness to get a vaccinated in India.¹

Due to the COVID-19 pandemic, the world faced a novel infectious disease, for which there currently is no treatment or herd immunity.² The pandemic poses a serious threat to our health and well-being (WHO, 2020a) and researchers are racing to develop and test vaccines against COVID-19 (Callaway, 2020).³

When vaccines become available, the success of the vaccination program will depend on the public acceptance of the vaccines. Understanding the perception and attitude toward vaccination can play a pivotal role in dealing with pandemics, and vaccination can be an important protective behavior from COVID-19. Since vaccination is one of the most proficient and financially savvy preventive intervention to forestall irresistible sicknesses. COVID-19 immunizations are viewed as vital for the counteraction and control of COVID-19.⁴

The COVID-19 pandemic continues to impose enormous burdens on morbidity and mortality while severely disrupting societies and economies worldwide. Governments prepare themselves to ensure large-scale, equitable access and distribution of safe and effective COVID-19 vaccines. Overcoming the pandemic will require sufficient health system capacity, and effective strategies to enhance trust in and acceptance of vaccines. Concern about vaccine hesitancy is growing worldwide.⁵

As a part of control measures against COVID-19, vaccines have been launched in India from 16 January 2021, which has been subsequently scaled up in response to the surge of cases starting in April 2021. The second wave of pandemic in India has triggered a massive humanitarian crisis with unprecedented number of hospitalizations and deaths. Mass vaccination against COVID-19 has emerged as a key preventive strategy.⁶

Need for the Study

Being new infection clinical picture is not well defined. Vaccination is ray of hope for mankind so that to understand approach and behaviour of community towards covid-19 vaccine is important. So that we can plan future vaccination strategy, hence this study was planned.

MATERIALS & METHODS-

- **Study design:** A Cross-sectional study.
- **Study setting:** The study was carried out among all peoples coming to covid-19 vaccination center as per inclusion & exclusion criteria in SRTRGMC, Ambajogai city (Maharashtra).
- **Study duration:** The present study was carried out from May 2022 to June 2022.
- **Study population:** People coming for 1st dose of covid-19 vaccination in covid vaccination center where study was being conducted.
- **Inclusion criteria:**
 - a. All people coming for 1st dose of covid-19 vaccination in covid vaccination center where study was conducted.
 - b. All those willing to participate.
- **Exclusion criteria:**
 - a. Those came for 2nd, 3rd dose of covid-19 vaccine.
- **Sample Size:** all peoples (189) who came for 1st dose of covid vaccine at vaccination

centre as per inclusion & exclusion criteria.

- **Data collection:** Ethical clearance from institutional ethics committee was obtained. Data collected by using preformed and pretested questionnaire by personal interview method. Written informed consent was obtained prior to the study.
- **Data entry:** Collected data was entered into Microsoft-Excel 2010 worksheets and coded appropriately.
- **Data analysis:** Data was analysed using Microsoft Excel 2010 (percentage, frequency) were used to describe the data appropriately.
- **Reference Citation:**⁷ Vancouver system of listing and citing of reference was used. The references were numbered according to their appearance in the text and listed accordingly.

RESULTS

Table 1: Socio-demographic Profile

SN	Determinants	Frequency	Percentage
1	Age group (in years)		
	<18	0	0
	18-29	64	33.86
	30-50	89	47.09
	>50	36	19.05
	Total	189	100
2	Gender	Frequency	Percentage
	Male	96	50.80
	Female	93	49.20
3	Marital status	Frequency	Percentage
	Married	146	77.25
	Unmarried	42	22.23
	Widow	1	0.52
4	Religion	Frequency	Percentage
	Hindu	174	92.07
	Muslim	15	7.93
5	Type of Family	Frequency	Percentage
	Nuclear	115	60.86
	Joint	69	36.50
	Three generation	5	2.64
6	Socioeconomic Class	Frequency	Percentage
	I	14	7.43
	II	25	13.22
	III	80	42.32
	IV	63	33.33
	V	7	3.70

Figure 1: Comorbidity in Study Participants.

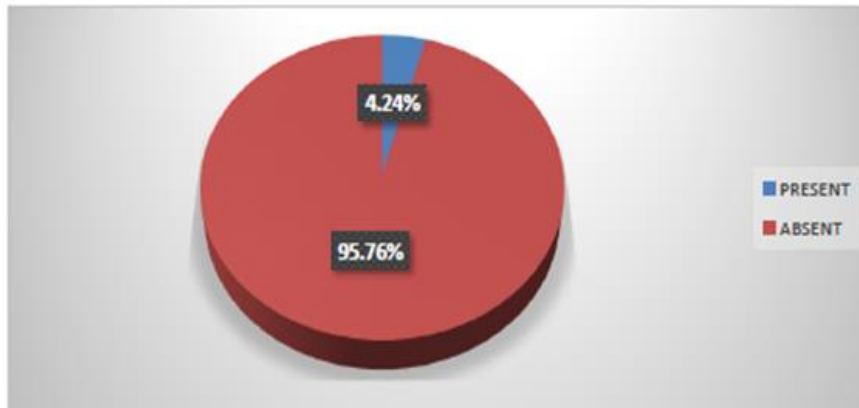


Table 2: Perception of Individuals towards Covid 19 vaccination

SN	Question	Strongly Agree	Strongly Disagree	Neutral
1	Covid 19 vaccination will prevent spread of infection to individuals	176	5	8
2	Covid 19 vaccination will prevent spread of infection hospital workers	152	25	12
3	I may not able to afford covid 19 vaccine	30	90	69
4	I trust pharmaceutical companies to provide safe and effective vaccines	106	26	47
5	My immune system is sufficient to protect e against disease	53	100	36
6	Covid 19 Vaccination is not necessary in India	43	125	21
7	Covid 19 vaccine will be effective in reducing the burden of the disease	131	26	32
8	Covid 19 vaccine may not be safe	39	124	26
9	Vaccines are generally safe	138	28	23
10	Guidelines with covid 19 vaccine should be taken seriously	160	16	13

DISCUSSION

Table No 1 shows majority of the participants in the study were from age group 30-50 years i.e. 89 (47.5%) and least were >50 years of age group i.e.36 (19.05%), Male and female participants were 96 (50.80%) and 93 (49.20%) respectively, 146 (77.25%) were Married, 174 (92.07%) were Hindu by religion, 115 (60.86%) were from Nuclear family, and 80 (42.32 %) were belonging to Class III Socio-economic status.

Kishore J et al⁴ observed in their study that the mean age of the participants was 39.0 ± 12.9, and there were more males compared to females (59.3%). Paul A et al¹ found that majority of participants were from age group of 31-40 years, male (65.2%) participants more than female (34.8%) participants which are similar to this study. Oche OM et al⁸ showed that respondents mean age group is 34±12.07, male (53.7%) > female (46.3%), married (75.5%) > unmarried (24.5%), 93.3% were Islam by religion. Roy RM et al⁹ revealed in their study that among respondents females (56%) > males (44%) which is not similar to present study. Majority respondents were belonging to Islam religion. Wafa A et al¹¹ in their study found that out of total 36 participants 25 were women and 11 were men which is not similar to present study. Dissimilar results were observed by Osuji VC et al¹³ in their study regarding gender and age group.

Fig. No 1 Shows 4.24% participants were having comorbidity where as 95.76% were not having any comorbidity. Similarly Roy RM et al⁹ and Sonmezer MC et al¹⁰ revealed in their study that among respondents 13%, 14.2% were having comorbidity where as 86%, 85.8% were not having any comorbidity respectively.

Table No 2 shows perception of individuals towards covid 19 vaccination. 176 individuals were strongly agreed that Covid 19 vaccination will prevent spread of infection to individuals, 152 were strongly agreed that covid 19 vaccination will prevent spread of infection in hospital workers, 90 individuals were strongly disagreed that they may not be able to afford covid 19 vaccine, 106 individuals were strongly agreed that they trust pharmaceutical companies to provide safe and effective vaccines, 100 individuals strongly disagreed that their immune system is sufficient to protect them against covid 19 infection, 125 individuals were strongly disagreed that covid 19 vaccine is not necessary in India, 131 individuals were strongly agreed that covid 19 vaccine will be effective in reducing the burden of disease, 124 individuals were strongly disagreed that covid 19 vaccine may not be safe. 138 individuals were strongly agreed that vaccines are generally safe. 160 individuals were strongly agreed that guidelines with covid 19 vaccines should be taken seriously. Overall perception of the participants in this study towards covid 19 vaccines was positive with sound knowledge regarding the covid 19 vaccines. Paul A et al¹ found mixed responses regarding level of knowledge and acceptance of covid 19 vaccine. It was seen that there exists a large unevenness in covid 19 vaccine acceptance, intention and hesitancy rates across the globe in Joshi A et al⁵ study. Metadel A et al¹² concluded that willingness of healthcare workers to get vaccinated against covid 19 was relatively high among them.

CONCLUSION

Over all perception of the participants in this study towards covid 19 vaccines was positive with sound knowledge regarding the covid 19 vaccines and around 4.28% were having comorbid status.

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