

A Study to Assess the Knowledge and Perception Regarding COVID-19 Vaccine among the Peoples of Selected Societies in Solapur City with View to Develop an Informational Booklet.

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Abstract

Background of the study: The COVID-19 pandemic is ruined the world in all the aspects such as economical, health and education. The peoples were worried about the diseases, had the anxiety and fear about the disease condition and the peoples were having curious about the COVID-19 vaccine, when it will be available, where it will be available and what will be the cost and what are the side effects of COVID-19 vaccination and what efficacy of COVID-19. So this study was undertaken to assess the knowledge and perception of peoples regarding COVID-19 vaccination. **Objectives:** To assess the level of knowledge and perception about COVID-19 vaccine among peoples of selected society and to find the association between the levels of knowledge with selected demographic variables and to prepare the information booklet. **Methodology:** The quantitative research approach with descriptive research design was used. The total 100 samples were selected by purposive sampling technique. The self-administered structured knowledge questionnaires were used to assess the knowledge and perception scale was used. The data was analyzed by descriptive and inferential statistics. **Results:** The results shown that out of 100 samples 05(05%) were had inadequate knowledge, 74(74%) had a moderate adequate knowledge and 21(21%) had adequate knowledge regarding the COVID-19 vaccination. The overall mean percentage of knowledge was 61.90% with mean and SD of 18.57±3.36. The mean percentage score of perception was 81.15% with mean and SD of 16.23±2.35. The majority 63 (63%) of the samples had positive perception for acceptance of the COVID-19 vaccination, 29(29%) were had negative perception and 08 (08%) were had neutral perception regarding COVID-19 vaccination. **Conclusion:** The study concludes that the majority of the samples had moderately adequate knowledge and positive perception. There in need for further study to assess the attitudes of the peoples.

Keywords: Knowledge; Perception; COVID-19 Vaccine; Peoples.

Introduction

The health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. Disease is a disorder of structure or function in human body especially one that produces specific signs or symptoms or that affects a specific location and is not simply a direct result of physical injury.¹

COVID-19 (Coronavirus disease 2019) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case was identified in Wuhan, China, in December 2019. It has since spread worldwide, leading to an ongoing pandemic.² Retrospective investigations by Chinese authorities have identified human cases with onset of symptoms in early December 2019.³

SARS-CoV-2 was identified in early January and its genetic sequence shared publicly on 11-12 January 2020. The full genetic sequence of SARS-CoV-2 from the early human cases and the

sequences of many other viruses isolated from human cases from China and all over the world since then show that SARS-CoV-2 has an ecological origin in bat populations.⁴

Symptoms of COVID-19 are variable, but often include fever, cough, fatigue, breathing difficulties, and loss of smell and taste. Symptoms begin one to fourteen days after exposure to the virus. Most people (81%) develop mild to moderate symptoms (up to mild pneumonia), while 14% develop severe symptoms (dyspnea, hypoxia, or more than 50% lung involvement on imaging) and 5% of patients suffer critical symptoms (respiratory failure, shock, or multiorgan dysfunction).

A Covid-19 vaccine is a vaccine intended to provide acquired immunity against Covid-19. Prior to the Covid-19 pandemic, work to develop a vaccine against the coronavirus diseases had established knowledge about the structure and function of coronaviruses, which accelerated development during early

2020 of varied technology platforms for a Covid-19 vaccine.

By January 2021, 69 vaccine candidates were in clinical research, including 43 in Phase I-II trials and 26 in Phase II-III trials. Several Covid-19 vaccines demonstrated efficacy as high as 95% in preventing symptomatic Covid-19 infections. As of January 2021, nine vaccines have been authorized by at least one national regulatory authority for public use: two RNA vaccines (the Pfizer-Biotech vaccine and the Moderna vaccine), three conventional inactivated vaccines (BBIBP-CorV from Sinopharm, BBV152 from Bharat Biotech and CoronaVac from Sinovac), two viral vector vaccines (Sputnik V from the Gamaleya Research Institute and the Oxford-AstraZeneca vaccine), and one peptide vaccine.⁵

The Drug Controller General of India (DCGI), the country's national drug regulator, announced on Sunday (January 3) that the Central Drugs Standard Control Organisation (CDSCO) has decided to accept the recommendations of its Subject Expert Committee (SEC), and approved the Covid-19 vaccines of both Serum Institute of India and Bharat Biotech for restricted use in the country. Serum Institute of India (SII), has manufactured Covishield, the Indian variant of the AZD1222 vaccine developed by Oxford University and AstraZeneca, and already stockpiled some 80 million doses. As such, the rollout can begin fairly quickly. The other vaccine that has got emergency use authorisation, Covaxin, manufactured by Hyderabad-based Bharat Biotech in collaboration with the Indian Council of Medical Research (ICMR), could take a few days or weeks to be available.

A proper awareness generation campaign is needed, explaining why vaccine is being given. It is an emergency and a do or die situation. People should know "the vaccination is voluntary," said Lalit Kant, scientist and former head of epidemiology and communicable diseases at the Indian Council of Medical Research (ICMR).

Objectives:

- To assess the level of knowledge about Covid-19 vaccine among peoples of selected society.
- To assess the perception about Covid-19 vaccine among peoples of selected society.
- To determine the association between the knowledge about Covid-19 vaccine with selected demographic variables regarding kidney transplantation and donation.
- To develop an information booklet regarding Covid-19 vaccine for peoples of selected society.

Assumptions:

- There may be inadequate knowledge regarding the covid-19 vaccination among general population.
- There may be negative perception regarding the covid-19 vaccination among general population.
- There may be an association between the knowledge with selected demographic variables of general population.
- There may be an association between the levels of perception with selected demographic variables.
- The informational booklet may enhance the knowledge and positive perception of general population.

Hypothesis:

H_0 : There will be a no significant association between the levels of knowledge with demographic variables.

H_1 : There will be a significant association between the levels of knowledge with demographic variables.

Methodology:

Research approach

The present study selected quantitative study to assess the knowledge and perception regarding covid-19 vaccination.

Research design

The descriptive study was used to describe the knowledge and perception of the general people regarding Covid-19 vaccination.

Variables under the study

Research variables: These are the variables, which are being studied and described the phenomena under study. In this study research variables are knowledge and perception.

Demographic variables: Age, gender, occupation, educational qualifications, source of information, have you taken vaccination. Have you suffered form covid-19 etc.

Setting of the study

The study was conducted in selected societies of Solapur, Maharashtra.

Sample and sample size

The sample of the study was 100 peoples in selected areas, who fulfilling inclusion criteria.

Sampling technique

The purposive sampling technique was used to select 100 Peoples from the selected areas of Solapur.

Sampling criteria

Inclusion criteria

- Who present at the time of data collection.
- Who is willing to participate in the study.
- Those who can read and write Marathi and English.

Exclusion criteria

- People who cannot understand local/English language.
- People who are not willing to participate.

Data collection technique:

Selection and development of the tool: In this study three types of tools were used by the researcher.

- Self-administered questionnaires have following headings.
- Baseline variable.
- Structured knowledge questionnaire on Covid-19 vaccination.
- Structured perception scale on Covid-19 vaccination.

Data analysis: The descriptive and inferential statistics.

Results

The majority of 31 (31.00%) samples were in the age group 36-40years complete followed by 27 (27.00%)age group of 31-35 years complete , 26(26.00%) for the age group of above 40 years complete and 16(16.00%) for the age group of 25-30 years complete.

The data reveals that 59(59.00%) were male and the remaining 41 (41.00%) were female.

Out of 100 samples that's 79(79.00%) have not vaccinated and remaining 21(21%) have vaccinated.

Out of 100 samples, 76(76.00%) belongs to the no history of suffering from Covid-19 and 24(24.00%) were infected and got cured form the Covid-19.

Out of 100 samples, reveals that's 45(45.00%) through mass media 39(39%) through health personnel, 8 (8%) through peer group/friends and remaining 8(8%) through in any other.

Table 1: Frequency and percentage-wise distribution of peoples in selected area by Age in years, Gender, Occupation, Source of information, have you vaccinated and have you suffered from Covid 19.

Socio Demographic Variables		Frequency	Percentage %
Age (in years)	25-30	16	16
	31-35	27	27
	36-40	31	31
	Above 40	26	26
Gender	Male	41	59
	Female	59	41
Occupation	Sedentary worker	13	13
	Moderate worker	48	48
	Heavy worker	39	39
Have you vaccinated	Yes, If yes (duration)	21	21
	No	79	79
Have suffered from Covid-19	Yes, If yes (duration)	24	24
	No	76	76
Source of information	Mass Media	53	53
	Health personnel	39	39
	Peer group/ friends	8	8

Table 2: Classification according to level of knowledge of peoples on Covid-19 vaccination.

Interpretation	Number	Percentage
Inadequate knowledge (Score 0-10)	5	5%
Moderately adequate knowledge (score 11-20)	74	74%
Adequate knowledge (Score 21-30)	21	21%

The above table depicts that among 100 samples, 05(05%) were had inadequate knowledge, 74(74%) had a moderate adequate knowledge and 21(21%) had adequate knowledge regarding the Covid-19 vaccination.

Table 3: Mean, Median, SD, Range and Mean% of level of knowledge regarding Covid-19 vaccination among peoples.

Aspect	Max. Score	Mean	Median	SD	Mean %
Knowledge	30	18.57	18	3.362	61.90

(SD: Standard Deviation)

The above table describes the mean and SD with mean%. The overall mean percentage of knowledge was 61.90% with mean and SD of 18.57±3.36. The median was 18.

Table no 04. Description of mean, SD, Median and Mean percentage perception of the peoples regarding Covid-19 vaccination.

Aspects	Max Score	Mean	SD	Mean %
Perception	20	16.23	2.35	81.15

The above table describes the mean, mean% and SD of perception of peoples regarding covid-19. The mean percentage score of perception was 81.15% with mean and SD of 16.23±2.35.

Table No 05. Classification of respondents based on the levels of perception of the regarding Covid-19 vaccination.

Aspects of perception	Frequency	Percentage
Positive perception to accept the vaccination	63	63
Negative perception to accept vaccination	29	29
Neutral perception for acceptance of vaccination	08	08

The above table describes the perception of peoples regarding Covid-19 vaccination. The majority 63(63%) of the samples had positive perception for acceptance of the Covid-19 vaccination, 29(29%) were had negative perception and 08(08%) were had neutral perception regarding COVID-19 vaccination.

The association was found between the level of knowledge, with age in year complete 9.1484(p>0.05), Have you vaccinated 5.294 (p>0.05), history of suffered from Covid-19. 5.307(p>0.05) and source of information 7.803 (p>0.05).

Discussion

The first objective was to assess the level of knowledge about Covid-19 vaccine among peoples of selected society. The findings shown that out of 100 samples 05(05%) were had inadequate knowledge, 74(74%) had a moderate adequate knowledge and 21(21%) had adequate knowledge regarding the Covid-19 vaccination. The overall mean percentage of knowledge was 61.90% with mean and SD of 18.57±3.36.

The second objective was to assess the perception about Covid-19 vaccine among peoples of selected society. The mean percentage score of perception was 81.15% with mean and SD of 16.23±2.35. The majority 63(63%) of the samples had positive perception for acceptance of the COvid-19 vaccination, 29(29%) were had negative perception and 08(08%) were had neutral perception regarding COvid-19 vaccination.

Recommendation

- The survey study can be conducted to assess the perception of staff nurses, peoples and front line warriors regarding post vaccine perceptions.
- The study can be conducted to assess the attitudes of general population regarding post vaccines.
- A survey can be assessed regarding the common side effects experienced by the post vaccinated persons.

Limitations of the study:

The study was limited to

- The selected peoples in the Solapur city only.
- Wider samples characteristics
- The areas of perceptions were narrow and
- The sample size was 100.

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