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Knowledge and Attitude about COVID-19 Vaccines among General Population Residing in Pune City, India

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ABSTRACT

Introduction: Corona virus COVID- 19 pandemic affected entire world, with the India being highly affected. Vaccine is best possible solution to control the pandemic. Various literature review reveals that vaccine is efficacious and safe for all age groups. Many Corona vaccines are currently in developing stage only 2 are available for use in India. Large majority of the population must accept the vaccination and take the vaccine at earliest. In view of this researcher would like to study the knowledge and attitude of general population regarding COVID- 19 vaccine so as the vaccination will become acceptable to all population.

Methods: The cross-sectional design was used. The study was conducted through online mode during acute phase of disease in January 2021.Data was collected through validated questionnaire. Total 120 individual were included in the study.

Results: The result revealed that 2/3 of respondent were having adequate knowledge and having positive about vaccine. Overall acceptance was found 85% among the general population. Respondents that more trust worthy reported information was given by governmental authorities. In initial phase before vaccine entered into the system, people were in confusion state. Through level of knowledge is moderately good, still some classes of people are having lower than reasonable knowledge and attitude towards vaccine.

Keywords
COVID-19 Vaccine, Corona Virus, Pandemic, Knowledge, Attitude, Vaccine Acceptance

INTRODUCTION

Vaccines are key element in combating COVID 19 pandemic. There are multiple vaccines under trial, many are in phase I & II trails. Vaccine tested and developed has to be accepted by the population. There is confusion in the mind of people in India. Serum institute of India and Bharat Biotech successfully launched the vaccine for Indian population from January 16, 2021. Initially all Covid warriors which are health care professionals are given vaccine on war footing level as they are frontline workers. Vaccine efficacy also plays very important role in acceptance and change in attitude of the people. For addition there is huge misunderstanding myths etc spreading across India. Most of the people in India are believing on natural immunity, herd immunity and natural home remedies like garlic, vitamins, steam inhalations, hot water gargling to protect themselves from this disease. There findings are significant in accurate health information to the people through various platform.

METHODS

Currently various vaccines are available. In view of the myths, misconceptions and lack of awareness regarding vaccines their preparation, unclear statutory guidelines and phases of vaccination researcher conducted online cross sectional study on knowledge and attitude among general population regarding COVID-19 vaccine. The study was conducted between Jan – Feb, 2021. Adult literate population of Pune city was included. The sample was selected from all five geographic areas of Pune city. Questionnaire prepared and validated by experts in the field which includes physician, nurse professionals, psychologist, and public health professionals. Google form was created and circulated to the participants.

The sample size was kept 120. The participants were included from urban and peri-urban areas. The estimated time to complete survey form is 10 minutes. The questionnaire includes demographic details of the participants, knowledge questionnaire and attitude checklist. The tool was pre tested and finalized based on feedback of participants of pilot study.

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AIM - Knowledge and attitude about COVID-19 vaccines among general population residing selected area of Pune City

Objectives

- To assess Knowledge about various COVID-19 vaccines among general population
- To assess attitude about various COVID-19 vaccines among general population

METHODOLOGY

Present study conducted in selected population who meets the inclusion criteria. Structured interview schedule through online mode was conducted. The sample soze was kept 125.

RESULTS

Socio-Demographic Characteristics

Total 120 participants were included in the study. Demographic characteristic is explained the Table-1

Table 1

Variables	Freq	Percent
Gender:		
Male: 60	58	48
Female: 180	62	52
Age (in years)		
18-30	30	25
31-50	58	48
50& above	32	27
Education:		
Upto 10^{th} Standard	36	30
Upto Graduate	72	60
Graduate & above	12	10
Sources of information about COVID-19 vaccines		
Mass Media	90	75
Health professionals	12	10
Family members and relative	6	5
Friends and neighbor	12	10

In this survey it was found that half of participants were female (52%) majority of the participants were between the age group of 31-50 years of age. Almost 60% of the participants studied upto graduation. Fortunately majority of the samples 75% obtained the information from mass media followed by health professionals and friends (10%)

Sr. No.	Questions	Yes	No	Do not know
1.	Will you accept to take vaccine when available			
2.	Do you know about the COVID-19 vaccine?	91.7%	8.3%	
3.	Do you know about the effectiveness of COVID-19 vaccine?	87.5%	4.2%	8.3%
4.	Is it a live vaccine?	65.2%	4.4%	30.4%
5.	Is it dangerous to use overdose vaccines?	75%	4.2%	20.8%
6.	Does vaccination increase allergic reactions?	20.8%	20.8%	58.3%
7.	Does vaccination increase immunity?	87.5%	4.2%	8.3%

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8.	Do you think the newly discovered COVID-19 vaccine may have side effects?	58.3%	16.7%	25%
9.	Does newly discovered COVID-19 vaccine is safe	66.7%	4.1%	29.2%
10.	Does the COVID-19 vaccine is essential for us.	79.2%	8.6%	12.5%
11.	Do you think that if everyone in the society maintains the preventive measures, the COVID-19 pandemic can be eradicated without vaccination?	50%	37.5%	12.5%
12.	Do you think the vaccine should be administered free of charge	95.8%		4.2%
13.	I will take the COVID-19 vaccine without any hesitation, if it is available	65.2%	13%	21.8%
14.	I will also encourage my family/friends/relatives to get vaccinated.	75%		20%
15.	It is not possible to reduce the incidence of COVID-19 without vaccination.	45.8%	20.8%	33.3%
16.	Does the injectable vaccines and all vaccinators are trained in vaccine safety protocols	79.2%		20.8%
17.	Does after vaccination, everyone needs to follow COVID preventive protocols (SMS)	79.2%	8.3%	12.5%
18.	Does after getting vaccination beneficiaries should wait in the observation room for 30 min	79.2%	4.1%	16.7%
19.	Does vaccine get injectable in the muscle?	79.2%		20.8%
20.	Does vaccine be given to everyone at a one go?	33.3%	41.7%	25%
21.	Does COVID recovered person to take the vaccine?	58.3%	4.5%	37.5%
22.	Does identity proof is necessary for registration purpose?	87.5%		12.5%
23.	Can person get vaccine without registration?	8.3%	70.8%	20.8%
24.	If person is suffering medical illnesses like Diabetes, Hypertension, Cancer etc. can they take vaccine?	33.3%	20.8%	45.8%
25.	Does vaccine is having 2 doses	70.8%		29.2%
26.	Does the second dose of vaccine need to be taken after 28 days of first dose?	43.5%	4.3%	52.2%
27.	Does serum company produces vaccines in India?	70.8%		29.2%

The above table shows that 91.7 % participants aware of the vaccine and only 8.3% samples have not heard about it. It indicates that majority of the Indian population are aware of the vaccine. When it was asked the type of vaccine which is developed in India only 65 % participants responded correctly and 30 % responded that they do not know the type of vaccines available in India. The researcher asked about purpose of vaccine in relation to immunity 87% samples responded correct and 58% responded that vaccine may have side effects and many do not know whether side effect will be there or not. Only 66 % people perceived vaccine is safe and 79% population responded that it is essential to take vaccine and very important to note 50% participants feels that pandemic will vanish by its own and need not to take vaccine. When asked about cost of the vaccine 96 % people responded that vaccine should be available free of cost. Two doses of vaccine are mandatory to get immunity, unfortunately only 71% participants knows that 2 doses are mandatory. Only 44% people knows that 4- 6 weeks gap is required in two doses. Only 65 % people under study accepted to take vaccine without any hesitation. Still 30 % people do not know where vaccine is manufactured in India.

DISCUSSION

Vaccine is definite solution to combat the COVID-19 pandemic. In south-east Asian studies shows that majority of the population accepted the vaccination drive. The knowledge, attitude and acceptability of the vaccine is crucial to know the changing nature of the disease progression and it will guide all of us to decide future way to control the disease. Understanding vaccine, its knowledge and attitude of the people must be assessed to find out their acceptability and perceived benefits of the vaccine. Our finding indicate that most of the population is unaware of the vaccination process, its effectiveness and efficacy. People still relies on government as they responded that vaccine should be given free of cost by government authorities, this attitude need to be changed in near future. This study indicates that majority of the population are know and understand the vaccine and it is clear that majority of the

participants accepts the vaccine when it will open for general population. A recent study conducted by Shibal B et al shows that 79% people will accept the vaccine when it is available.

CONCLUSION

There is huge confusion among general population regarding vaccines which are available with statutory authorities. Awareness about the vaccine and its acceptance is depends upon socio-demographic characteristics. More the knowledge more the acceptability rate. Acceptance of the vaccine again depends upon additional information available through literature or mass media campaign. This paper may be useful for the policy makers and government authority to implement successful vaccination program.

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REFERENCES

[1] Pal R, Yadav U, Grover S, Saboo B, Verma A, Bhadada SK. Knowledge, attitudes and practices towards COVID-19 among young adults with Type 1 Diabetes Mellitus amid the nationwide lockdown in India: A cross-sectional survey. Diabetes research and clinical practice. 2020 Aug 1;166:108344.

[2] Bhutta ZA, Basnyat B, Saha S, Laxminarayan R. Covid-19 risks and response in South Asia.

[3] Hager E, Odetokun IA, Bolarinwa O, Zainab A, Okechukwu O, Al-Mustapha AI. Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic: A bi-national survey in Africa. PloS one. 2020 Jul 29;15(7):e0236918.

[4] Neumann-Böhme S, Varghese NE, Sabat I, Barros PP, Brouwer W, van Exel J, Schreyögg J, Stargardt T. Once we have it, will we use it? A European survey on willingness to be vaccinated against COVID-19.

[5] Ssebuufu R, Sikakulya F, Binezero SM, Wasingya L, Nganza SK, Ibrahim B, Kyamanywa P. Awareness, knowledge, attitude and practice towards measures for prevention of the spread of COVID-19 in the Ugandans: A nationwide online cross-sectional Survey. Medrxiv. 2020 Jan 1.

[6] Sharun K, Rahman CF, Haritha CV, Jose B, Tiwari R, Dhama K. Covid-19 vaccine acceptance: Beliefs and barriers associated with vaccination among the general population in india. Journal of Experimental Biology and Agricultural Sciences. 2020 Jan 1;8(Special Issue 1).

[7] Malik AA, McFadden SM, Elharake J, Omer SB. Determinants of COVID-19 vaccine acceptance in the US. E Clinical Medicine. 2020 Sep 1;26:100495.

[8] Wang J, Jing R, Lai X, Zhang H, Lyu Y, Knoll MD, Fang H. Acceptance of COVID-19 Vaccination during the COVID-19 Pandemic in China. Vaccines. 2020 Sep;8(3):482.

[9] Nepal R, Sapkota K, Adhikari K, Paudel P, Adhikari B, Paudyal N, Sapkota K, Nepal R. Knowledge, attitude and practice regarding COVID-19 among healthcare workers in Chitwan, Nepal.