

Knowledge, attitude, and practices regarding second waves of COVID-19: A cross-sectional study among rural population in India

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ABSTRACT:

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face. The aim of the present study was assess the Knowledge, attitude, and practices regarding of COVID-19: among rural population. Cross-sectional questionnaire-based study was conducted on rural people A total of 200 participants hailing from rural areas were enrolled.

Results: Most common source of information for the participants was through television (54.8%) and radio (49.2%). Only 77% claimed that they were using face mask and 72% claimed to be following social distancing. A large (60%) proportion of the participants did not know that COVID-19 could spread from asymptomatic patients. The mean (percentage) scores of knowledge, attitude, and practice were 21.26 (82%), 9.37 (92%), and 10.32 (86%), respectively. Education of participants was a key determinant for use of social distancing and face mask as a preventive tool. With increasing age, the practice of social distancing and the use of face mask were decreasing in our study.

Conclusion: Television/Radio channels form an important source of information and need to be used more effectively to educate the people about the disease and create awareness about effective preventive measures. People need to be educated about the role of asymptomatic carriers in spreading the disease.

Keywords: (Knowledge, Attitude, Practice, Second wave, Covid 19)

INTRODUCTION

In December 2019, a pathogenic human coronavirus SARS- CoV-2, coronavirus disease 2019 (COVID-19), was recognized and has caused serious illness and numerous deaths. The ultimate scope and effect of this outbreak are unclear at present as the situation is rapidly evolving¹. The disease causes respiratory illness (like the flu) with main clinical symptoms such as a dry cough, fever, and in more severe cases, difficulty in breathing. COVID- 19 is highly contagious with a certain mortality rate, and it was classified as a class B infectious disease and managed as a class A infectious disease in China in January 2020. The epidemics of COVID-19 have been recorded over 200 countries, territories, and areas with 2 878 196 confirmed cases and 198 668 death cases¹. On 11 March 2020, WHO changed the status of the COVID-19 emergency from public health international emergency (30th January 2020) to a pandemic. Nonetheless, the fatality rate of the current pandemic is on the rise (between 2%-4%), relatively lower than the previous SARS-CoV (2002/2003) and MERS-CoV (2012)

outbreaks.¹

In India, a confirmed case of COVID-19 was reported on 30th January 2020, who was a student traveled from Wuhan, China, and has successfully recovered from the infection on 14th February 2020. On 27th April 2020, the Ministry of Health and Family Welfare confirmed a total of 28 380 confirmed cases, 6 362 cured/ discharge cases, and 886 death cases in the country from 32 states/ union territories. The infection rate of COVID-19 in India is reported to be 1.7%, significantly lower than the worst affected countries, as the report on 29 March 2020. After a 14-hour voluntary public curfew named as 'Janta Curfew', India immediately announced the implementation of a nation-wide complete lockdown for 21 d (*i.e.* up to 14th April 2020), which only allowed essential services to operate over the entire 130 million population of India. The battle against COVID-19 is still unending in India.²

NEED OF THE STUDY:

India is a country of vast sociocultural diversity; health inequalities and economic disparity present with challenges and threat by the growing pandemic of COVID-19. Enforcement of an immediate lockdown, which was praised by the WHO as "tough and timely," and cluster containment to break the chain transmission are effective approaches. India is the second-largest internet user in the world with >560 million from 1.39 billion gross population. One threat to the COVID-19 response in India is the ubiquitous spread of misinformation by raising falsehoods such as rinsing the nose with saline, spraying of alcohol and chlorine, or 5G mobile networks inhibiting the spread of the virus, during the crisis, which is dangerous because it can mislead and confuse the public. Over 3 billion posts and 100 billion interactions are present on COVID-19, making infodemic spread faster than a pandemic. The most important factor in preventing the spread of the virus locally is the empowered citizens with the right information and taking advisories being issued by the Ministry of Health and Family Welfare, Government of India, regularly.³

MATERIALS AND METHODS

A prospective cross-sectional questionnaire-based study was conducted. The study will be conducted in a selected rural area. The population of the study consists of rural people. The sample size used was 200 people. Non-randomized purposive sampling technique was used for the present study. A structured questionnaire and the consent form were given to respondents.

MAJOR FINDINGS OF THE STUDY

SECTION I: DESCRIPTION OF THE PEOPLE ACCORDING TO THEIR DEMOGRAPHIC CHARACTERISTICS

200 persons completed the questionnaire and were included in the study. 60% of the participants were male. More than half (50%) of the participants were 40–50 years old, while 32% of them were less than 25 years. 50% of the participants had no education. Only 6% of the participants were graduates. 60% are Hindu participants, Most (98%) of the participants knew that a pandemic due to coronavirus is going on and the most common source of information for them was through television (55%) and radio (48.2%).

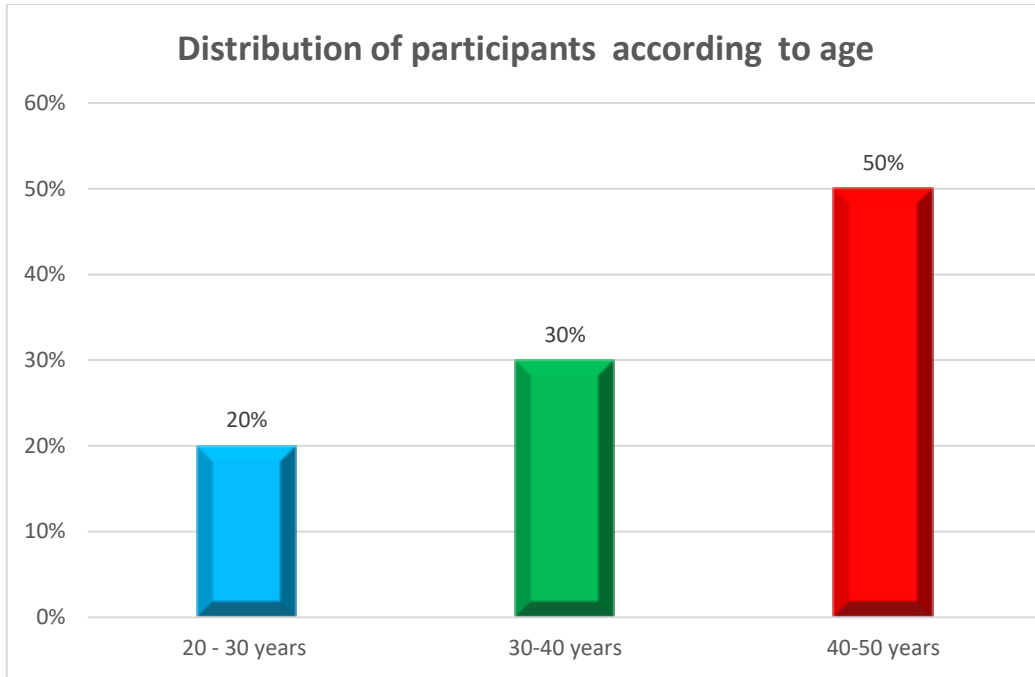


Figure 1: Percentage wise distribution of participants according to age

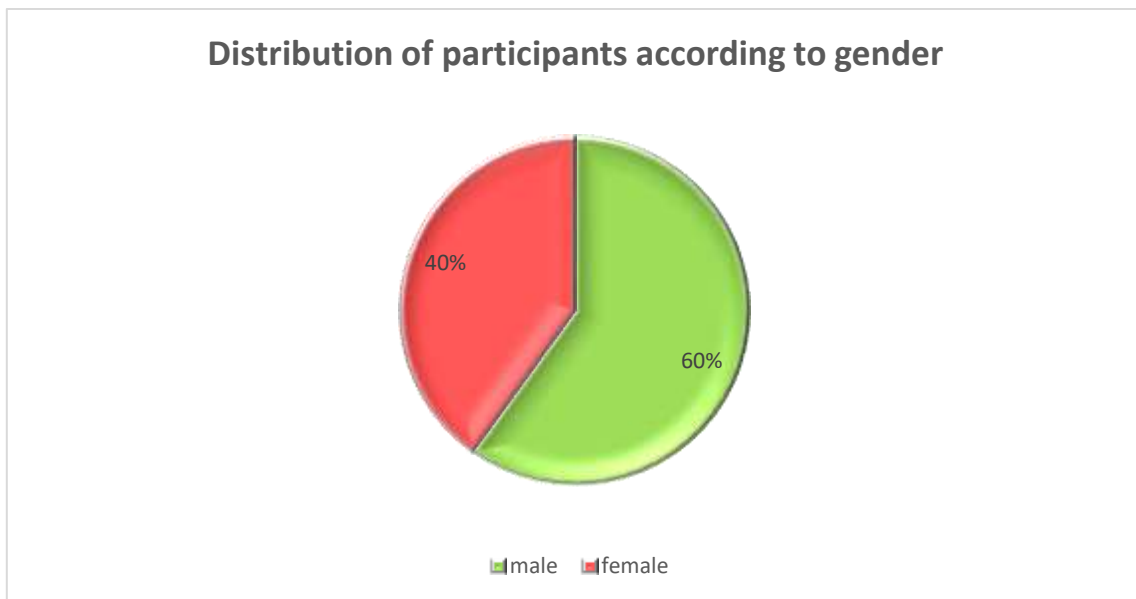


Figure 2: Percentage wise distribution of participants according to gender

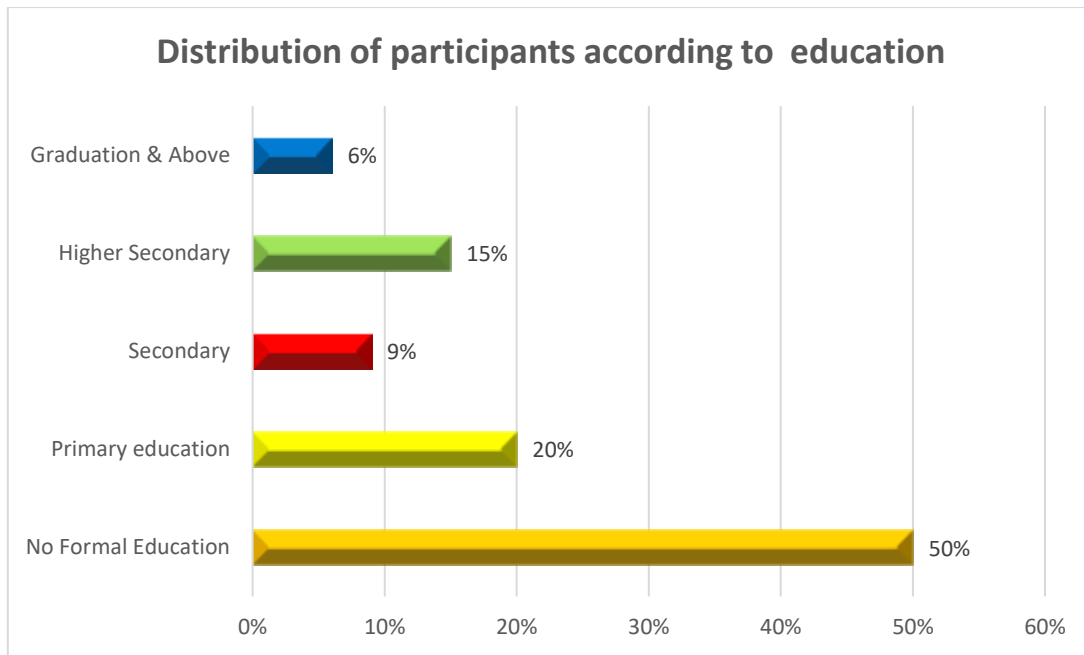


Figure 3: Percentage wise distribution of participants according to education

SECTION II: DISTRIBUTION OF PEOPLE ACCORDING TO KNOWLEDGE ON COVID 19

Table no 1

S. no	Item	Frequency	Percentage
1	Knowledge about signs and symptoms	180	90%
2	Knowledge about transmission	160	80%
3	Knowledge about treatment	120	60%
4	Knowledge about high risk population	114	57%
5	Knowledge regarding arogya setu app	110	55%
6	Knowledge about preventive measures	100	50%

Regarding knowledge of the disease and its symptoms, 90% recognized fever and 87% recognized cough as the main symptom of the disease. 60% of the participants knew that it was associated with difficulty in breathing also. Knowledge about transmission of disease 80% a large (60%) proportion of the participants did not know that COVID-19 could spread from asymptomatic patients. Again only 27% of the participants could exactly identify the condition in which they should report to the medical facility.

A little more than half (55%) of the participants knew about the Arogya Setu app which is an IT tool launched by Government of India as a weapon in fight against COVID-19. Only 50% of the participants had downloaded it. 40% of the participants knew the COVID-19 helpline number. Knowledge about preventive measures Due to the pandemic of COVID-19 disease and the restrictions imposed, people had to face a lot of difficulties. Regarding the same, 50% of the participants stated that they had monetary constraints due to the restrictions implemented and around 27% felt difficulty in staying at home most of the time 40% of the participants faced difficulty in withdrawing money from the bank and with online education. Only 15% of participants had difficulty with agriculture-related activities. On further analysis, it was evident that education was a significant predictor of knowledge about

COVID-19 in the study population. Social media was found as a significant source of information in those who had higher education levels. Those who were more educated were more aware about the fact that asymptomatic persons may also be a source of infection to others.

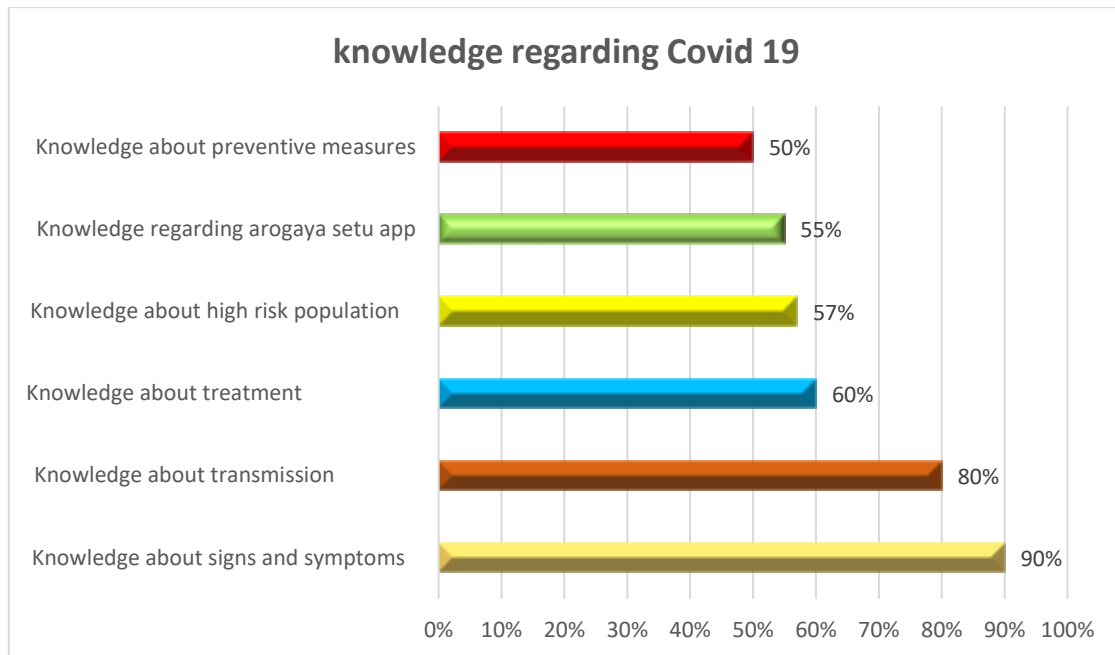


Figure 3: Percentage wise distribution of knowledge regarding COVID 19

DISTRIBUTION OF PEOPLE ACCORDING TO ATTITUDE ON COVID 19.

The overall attitude of participants on following infection prevention guidelines were strong with a mean (SD) score of 9.37 (1.27) and 92%. Notably, 78.7% had positive hope that COVID-19 infection can be eradicated from India and 95% of the participants agreed that people in their neighboring community are strictly practicing the recommended guidelines as well.

Majority of the population (95.6%) had not visited any populated place. Nearly 98 % of the respondents believed that COVID-19 can be successfully controlled. Moreover, 95.01% agreed with the idea of lockdown to prevent the spread of COVID-19. On multiple linear regression analysis, female gender ($\beta = -0.005$; $P = 0.007$), middle age ($\beta = -0.10$; $P < 0.001$), higher education ($\beta = 0.025$; $P < 0.001$), and higher occupation ($\beta = 0.020$; $P < 0.001$) were associated significantly with good attitude score.

: DISTRIBUTION OF PEOPLE ACCORDING TO PRACTICE ON PREVENNTION REGARDING COVID 19

In this study 75% of the participants said they were washing their hands frequently. On inquiring about difficulties faced by the participants in following the preventive measures, 15% of the participants reported that they were not able to buy a face mask and 18% of the participants were not comfortable with wearing a face mask. 60% are avoid touching face and eyes 65n% are maintain a healthy lifestyle focusing on outbreak, 70% are obey all government rules related to the COVID-19,78% maintain social distance (or home quarantine).

DISCUSSION:

A prospective cross-sectional questionnaire-based study was conducted on Knowledge, attitude, and practices regarding of COVID-19 in selected rural areas. In general, participants

in this study had good knowledge about the disease, its methods of spread and prevention. Our study participants had notable positive attitude and practice with a strong coalition of knowledge. Majority of the population showed an optimistic attitude towards the idea of lockdown, grocery and medicine stocking, way of taking proper preventive measures while leaving home and to keep themselves away from crowded places.

A study conducted by Manuja L. M., Raghavendera S. K., Ramya M. P. Knowledge, attitude and practice towards COVID 19 among the rural community: a cross sectional study during outbreak. This cross sectional study was carried out among 572 households in the rural field practice area of AIMS, B. G. Nagar for a period of 3 months. Personal interview of the households was done using pretested semi structured questionnaire after obtaining the consent. Data was entered in MS Excel and descriptive statistical measures like percentage, mean, and standard deviations were calculated. Among 572 households, more than half (53.9%) of the interviewed subjects were less than 40 years old. Majority, 94.6% of the respondents responded correctly that the spread of the disease is by close contact with an infected person and respiratory droplets, 96.2% knew correctly the early sign/s of COVID-19. 94.2% of them had the confidence that the world will win the battle against COVID-19. Most (98%) of the study subjects were taking proper preventive measures while leaving home.⁴

CONCLUSION: Results of the study conclude that participants in this study had good knowledge about the disease, its methods of spread and prevention. Our study participants had notable positive attitude and practice with a strong coalition of knowledge. Majority of the population showed an optimistic attitude towards the idea of lockdown, grocery and medicine stocking, way of taking proper preventive measures while leaving home and to keep themselves away from crowded places. To limit the spread of COVID-19, we need to educate this population regarding the disease and its preventive methods aggressively. A vast majority of rural population does not have access to internet; hence, we need to utilize the television/radio channels more effectively for the same and also emphasize to the population about the role of asymptomatic carriers in spreading the disease.

CONFLICT AND INTEREST:

Researcher has no conflict during the research work. Also they have interested in community area for doing research.

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