

Study on the Knowledge, Attitude and Practices during the COVID-19 Pandemic in the Rural Community in Aligarh

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| Received: 15.07.2022 | Accepted: 27.08.2022 | Published: 02.09.2022

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Abstract

Research into individuals' risk perception is essential to understanding their behaviour, and adoption of individual-level preventive measures (e.g. wearing masks, washing hands etc) in case of pandemic. Various perceptions and practices have been associated with the COVID-19 pandemic. In this study, we assessed the knowledge, attitude and practices regarding COVID-19 among rural population in Jawan in Aligarh. A descriptive cross-sectional study design was used. Data was collected using an interviewer-administered questionnaire. Data collection took place from August - October, 2021. We conducted a door to door survey and interviewed 300 persons, aged ≥ 18 years, who gave consent for the study. The questionnaire was developed using the risk communication and community engagement tool, which was modified according to local settings. Majority of the study population thought Covid 19 to be a disease while few thought it to be a biological weapon used by China or to be due to radiation caused by 5 G network testing. Majority of the study population washed their hands with soap and water and avoided crowded places. Majority of the respondents perceived fever, cough and sore throat as the main symptom, followed by breathlessness and running nose. Very less respondent's perceived loss of taste and loss of smell. Majority of the population adopted some homemade remedies as a precautionary measure in the form of tea or Kaadha. Most of them had knowledge about mode of spread through cough and sneeze but no one know about the spread of disease through asymptomatic patient. Health care workers also need to use strategies for identifying and communicating with at-risk populations (specifically the elderly) through field visits. They also need to prioritize research in areas of elderly COVID-19 perceptions, particularly around barriers and facilitators to adherence to preventive measures.

Keywords: Attitude, practices, knowledge, covid 19.

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INTRODUCTION

Since the first reported case of corona virus disease 2019 (covid-19) in December 2019, in Wuhan, China, it has quickly spread globally prompting the World Health Organization (WHO) to declare it a pandemic on 11th March, 2020. It was officially declared a pandemic by the World Health Organization (WHO) on March 11, 2020 [4]. It has been declared a public health emergency of international concern by the World Health Organization [1]. The WHO formally named the disease caused by this novel virus "COVID-19 [2].

India reported its first Covid -19 case on 30 January 2020 in Kerala. Till May 8, 2020 India had reported 59,881 active cases, with 1990 reported deaths [5]. This is a highly contagious and rapidly spreading disease. To contain this disease, a nationwide lockdown

was declared in India on 25th March 2020, which has been extended at least until 31st May, 2020. The citizens were advised to stay at home and maintain social distancing.

Research into individuals' risk perception is essential to understanding their behaviour and adoption of individual-level preventive measures (e.g. wearing masks, washing hands etc) in case of pandemic. Various perceptions and practices have been associated with the COVID-19 pandemic.

In this study, we assessed the knowledge, attitude and practices regarding COVID-19 among rural population in Jawan in Aligarh.

MATERIALS AND METHODS

A descriptive cross-sectional study design was used. Data was collected using an interviewer-administered questionnaire. Data collection took place from August -October,2021.We conducted a door to door survey and interviewed 300 persons, aged ≥ 18

years, who gave consent for the study .The questionnaire was developed using the risk communication and community engagement tool, which was modified according to local settings.

RESULTS

Table 1: Perception of covid -19 among study population (n=300)

1.	Respondents thought it was disease.	204
2.	Respondents reacted as it was biological weapon used by China.	63
3.	Respondents told us that it was due to radiation caused by 5G network testing.	33
Total		300

Table 2: Preventive practices adopted by study population (n=300)

1.	Wash their hands with soap and water	294
2.	Wash their hands with mud or ash(rakh)	63
3.	Use sanitizer.	18
4.	Expose themselves to sun	120
5.	Avoid crowded places	273
6.	Used face mask	169
7.	Follow social distancing	118
8.	Avoid social events	168

Table 3: Sign and symptoms as perceived by study population (n=300)

S. No.	Signs and symptoms	N=300
1.	Fever	288
2.	Cough	292
3.	Sore throat	277
4.	Bodyache	174
5.	Running nose	212
6.	Breathlessness	219
7.	Loss of taste	57
8.	Loss of smell	33
9.	Weakness	27
10.	Rashes	0
11.	Headache	51

Table 4: Home Remedies Adopted by Study Population as a Precautionary Measure (N=300)

1.	Respondents consumed kaadha(Garam Masala Kadha, Neem and tulsi kadha, gurh long adarak ajwain kadha , adarak lehsun kadha,Papaya leaves kadha,Honey kalonji kadha etc)	189
2.	Respondents took steam inhalation regularly.	120
3.	Respondents drank tea frequently	258
4.	Respondents used Vicks as an effective measure.	5
5.	Respondents poured drops of mustard oil in both nostrils in night	6

Table 5: Knowledge about Modes of Spread in Study Population (N=300)

1.	Cough and Sneeze	282
2.	Physical Contact	96
3.	Mosquito Bite	56
4.	Contaminated Food and water	63
5.	Sexual contact	46
6.	Curse of God	76
7.	Consuming Pork	43
8.	Asymptomatic patient to others	0

Financial crisis experienced by almost all respondents in this study as someone lost his job, others shop closed, no labour work in construction, factories

closed. (There were statements like *Sab Jama Punji Khatm ho gayi, Bhagwan ka shraap lag gaya, Beta ham to barbaad ho gaye, Sukhi roti chatni kha kar guzara*

kiya, Biwi ka zewar bik gaya). These were statements made by study population which could really break someone's heart.

Bad Impact of Covid 19 in Study Population of Jawan

- Family members avoid looking after people suffering from covid 19, in their own houses. Elderly people were not given proper care. Their own family members did not want to take them home after discharging from hospitals.
- Statement were given by few participants like (*wo hamei achoot samajhne lage ,hamko ghar nahi laana chahte thae, etc*)
- More faith develops on Traditional Healers, Ayurveda, Vaidhs and Hakims. Quacks also came forward to take advantage from covid - 19 in the community.
- Terror of this disease made common man to self-medicate himself and avoid testing in hospitals because of social stigma e.g use of Drug Azithromycin and steroid frequently by people in villages. Medicines were taken without medical supervision from store directly.
- Separation of kitchen and Division of land and property was likely seen in some families.

DISCUSSION

As shown in table 1, 68% of the study population thought Covid 19 to be a disease. 21% thought it to be a biological weapon used by China while 11% thought Covid 19 to be due to radiation caused by 5 G network testing.

According to a study [3], 19.9% of study population thought it to be an attack by western world, 27.5% thought it to be a deadly disease while 8.2% did not believe this disease existed.

Another study [6] showed that nearly all the participants had the correct idea about the place of origin and the signs or symptoms of COVID-19.

As shown in table 2, 98% of the study population washed their hands with soap and water. 21% of the study population used mud or ash for washing their hands. 91% of the study population avoided crowded places. Only 56.3% of the study population used face masks. We asked the reason for not using face masks. Some of the rural respondents were not able to buy a face mask because of financial reasons. Others were not comfortable with wearing a face mask. In this study we came to know educational qualification of respondents play a major role to perform social distancing and use of face mask as preventive tool. Only 39.3% followed social distancing and 56% avoided social events.

On the contrary as in study [6], 97.5% of study population followed social distancing and 85% used masks when went outside. 97% washed their hands when coming from outside which is almost same as in our study.

As in study [3], 65.5 % of respondents used face masks and 48% followed social distancing. Only 6.1% used hand sanitizers which is almost same as in our study (6%). The reason in our study is that the people were not able to afford sanitizers because of financial crisis.

In another study [7], the perceived effectiveness of adoption of hygiene practices, social distancing, and travel avoidance were 99, 99 and 97%, respectively. At least 80% of respondents thought that washing hands frequently with soap and water, covering their noses and mouths while sneezing or coughing, avoiding contact with people who have a fever or respiratory symptoms, or have been to affected areas within the last 14 days, refraining from crowded areas, social events, and travel to affected and other areas in the world were very effective measures in preventing the spread of COVID-19.

In another study [8], washing and sanitizing hands (87.9%) and avoiding public places and crowds (85.7%) were identified as the protective measures most frequently used against COVID-19.

As in table 3, majority of the respondents perceived fever (96%), cough (97.3%) and sore throat (92.3%) as the main symptom, followed by breathlessness (73%) and running nose. Very less respondents perceived loss of taste and loss of smell (19%, 11% respectively).

As in study [8], the majority of respondents identified "fever or chills" (87.6%), "shortness of breath" (82.7%) and "cough" (73.1%) as the main symptoms of COVID-19. Only (2.9%) reported "I do not know" when asked about the main symptoms of COVID-19.

In another study [9], most healthcare professionals (98%) as well as the general public (97%) identified "difficulty in breathing" as the main symptom of SARS-CoV-2 infection along with cough and fever while in our study breathlessness was perceived by only 73% population.

In table 4, 63% of the population adopted some homemade remedies as a precautionary measure in the form of Kaadha. 40% took steam inhalation. 86% took tea frequently (either milk tea or lemon tea or ginger tea or tulsi tea). Rural population is fond of tea. Vicks application was very rare in study population.

Home-based strategies such as intake of certain foods and food supplements have also been suggested to have possible protective and therapeutic effects against COVID-19 [10, 11]. A recent study suggested the use of home-based medicinal plants in the prevention of COVID-19 as well as the treatment of its associated respiratory symptoms [12]. In Africa, a study in Morocco showed that more than half of the study subjects used home-based medicinal plants during this current pandemic to boost their immune system and treat respiratory tract infections that are associated with the COVID-19 infection [13].

In another study [14], we noted that 29.6% of participants used some form of home-based remedies. Neem tree leaves were the main ingredient in inhalation therapy and baths. These warm baths and steam inhalation were based on the general belief that heat kills SARS-CoV-2. Ginger with or without sweeteners or ginger in combination with other fruits, herbs, or seeds was commonly practiced as a preventive drink against COVID-19. Citrus fruits with sour properties such as lemon and lime were also believed to prevent COVID-19. Hibiscus leaves locally called “sobolo” became popular for fighting COVID-19. Other drinks taken to prevent COVID-19 included boiled neem tree leaves, guava leaves, pineapple peels, and moringa leaves independently or in combinations with each other. Spices such as Aidan fruit locally called “prekese” was taken as drink or mixed with other spices. Cloves were also common in some of the drinks. Warm temperature of the drinks is preferred due to the widely held belief that SARS-CoV-2 survives best in cold environment and is destroyed by heat. Home based remedies were reported 80% by Villena Tejada *et al.*, [12] in Peru, 64% by Al Najran *et al.*, [15] in Saudi Arabia, and 67% reported in Morocco [13].

As in table 5, 94% of study population had knowledge about mode of spread through cough and sneeze. No one knows about the spread of disease through asymptomatic patient. 32% thought to be spread by physical contact. Some people thought the disease to be a curse of God (25%) or because of pork intake (14.3%). Mosquito bite was the reason given by 18.6% population. This is because these rural people were unaware about Covid 19. People need to be educated about the role of asymptomatic carrier in spreading the disease through T.V and health education.

In rural areas of Jawan our participants gathered information by Television channels or through friends or families. A vast majority of rural population does not access to internet. 38% of study population were aware about Arogya Setu App, which was an IT tool launched by government of India. Out these 38 percent population, only 15% participants downloaded it.

A study had shown that only half of the respondents knew this disease could spread from

person-to-person in close contact [16, 17]. Similarly, 56% of the study population had no knowledge of masking as a means of preventing infection in a study [16].

In another study [18], 52.0% were aware COVID-19 could be transmitted through contact with infected persons. A minor proportion of the respondents, 42.6% were aware that COVID-19 could be transmitted through sneezing, while a higher proportion, 62.6% believed that COVID-19 is not air borne. A minor proportion of the respondents, 42.4% had good knowledge of the mode of spread of COVID-19.

Mohammed *et al.*, [19] also noted that approximately half of their respondents were unaware that SARS-CoV-2 could spread from person-to person. This poor knowledge on mode of spread could be due to inaccessibility of information.

CONCLUSION

During an emerging pandemic, the public should adopt and practice preventive measures in order to stop the spread of the virus, particularly when pharmaceutical interventions are not yet available. The COVID-19 pandemic has affected the world in various ways. The deficiency of information and the rapidity of its dissemination are important, as this pandemic requires the cooperation of entire populations. It is important that the knowledge of communication channels be known and be kept at the topmost priority throughout the pandemic. Health care workers also need to use strategies for identifying and communicating with at-risk populations (specifically the elderly) through field visits. They also need to prioritize research in areas of elderly COVID-19 perceptions, particularly around barriers and facilitators to adherence to preventive measures.

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