

Research Article

A Study during COVID-19 Pandemic among People for Attitude towards Face Mask, Social Distancing and Safe Practices in Pilkhuwa, UP, India

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A B S T R A C T

Background: In spite of the vaccination available for COVID-19, the importance of non-pharmacological interventions (NPIs) methods became very significant in control and prevention of COVID-19 infection. Since the government of India issued phase-wise nationwide unlock, a drastic change in growth rate of the cases was observed. This study was conducted to ascertain the practice and attitude towards the use of face mask, social distancing and safe measures by people in public with their understanding to have informed insight regarding the growth of COVID-19.

Methods: This observational qualitative study was carried out at public places in Pilkhuwa, Hapur, UP, India from 31st March 2020 to 1st April 2021. A total of 300 people were observed. Data were collected from different public (crowded) areas. Collected data were segregated into the segment based on research question and analyzed using qualitative content analysis. People were not engaged in designing the study, research questions, setting understanding or evaluating results, or research reporting.

Results: People have a different attitude towards the use of face mask, social distancing, safe measure and different knowledge or understanding regarding COVID-19 and prevention.

Conclusion: The confusion is due to information pollution, new unfamiliar practices, serious disease (high mortality), attack on freedom and diversion of the real issue in understanding the ongoing health crisis and disobedient attitude towards the preventive measures.

Keywords: COVID-19, Attitude, Safe Practices, Social Distancing, Facemask

Introduction

The COVID-19 disease, caused by the infection of SARS CoV-2 was first reported in Wuhan, China in December 2019, modern globally connected world made the virus quickly spread across multiple countries. In India, the first case was reported on Jan 31, 2020. During present COVID-19 pandemic period, in spite of the vaccination available for COVID-19, the importance of non-pharmacological interventions (NPIs) methods is very significant in the control/prevention of COVID-19 infection.

NPIs at population level including travel suspension and national crisis response were helpful to flatten the epidemic bend of COVID-19 in China.¹ Similar practice and lockdown was enforced in India.^{2,3} Nationwide phase-wise unlock had drastic changes in the growth rate of cases observed.

A study of practice attitude towards NPIs such as use of facemask, maintaining social distancing and safe practices by people in public with their understanding may influence the growth of COVID-19.

Phase-wise Lockdown in India

- 24.03.2020 to 14.04.2020 extended to 30.05.2020 again extended till 17.05.2020
- Schools and colleges closed till 30.08.2020
- 24.03.2021 to 25.04.2021

Methods

The observational study was carried out from 31st March 2020 to 1st April 2021. Only 300 people were observed in Pilkhuwa, Hapur, UP, India. Everyone in the public was observed. Findings were recorded after observing the proper use of facemask, social distancing and safe practices in a crowd by people and public conversation regarding COVID-19. Data was collected from public areas such as shops, markets, bank, local transport stations, hospital OPD, etc. after visits. Collected data were segregated into segments and sub-segments based on research question, and analyzed using qualitative content analysis. The health workers or front line workers were not engaged in designing a study, research question setting, understanding or evaluating results, or research reporting. Ethical approval or consent was not required, as the study was observation related to public health concern without the involvement of people.

Results

The study findings are highlighted in Figure 1, Figure 2, and Figure 3, respectively.

Facemask Practices

Wear Mask Correctly

- Using the mask as per guidelines (Covering nostril and mouth) 15%

- Mask removes while talking or sneezing or coughing though wear correctly 43%
- Frequent touching of the mask though wear correctly 42%

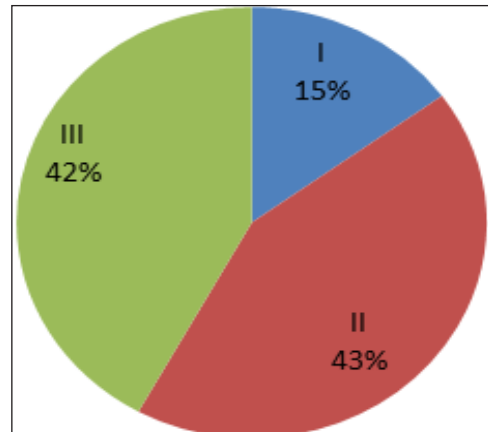


Figure 1. Pie Chart of Correct Facemask Practices

Wear Mask Incorrectly

- Mask covers the nose only 10%
- Mask covers the mouth only 15%
- Mask covers the chin only 20%
- Mask wear around the neck 05%
- Mask carrying in the hand 16%
- Mask Carrying in the pocket or purse 19%
- Do not use mask 15%

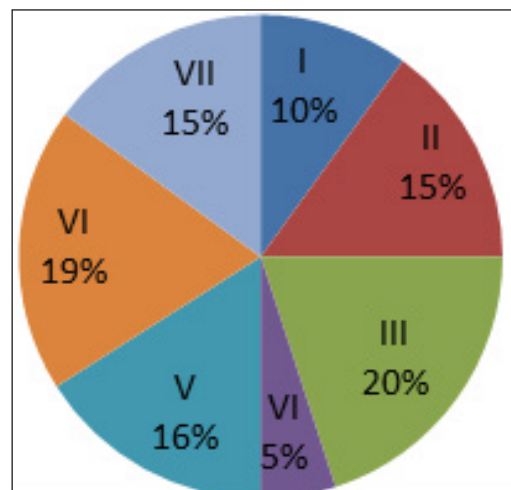


Figure 2. Pie Chart of Incorrect Facemask Practices

Social Distancing Practice ≥ 1 Meter (Figure 3)

Social distancing followed ≥ 1 Meter 5%.

Don't Follow the Measure 95%

- Social distancing maintained <1 meter distance
- Social distancing is not maintained at all
- Social gathering marriage crimination, market

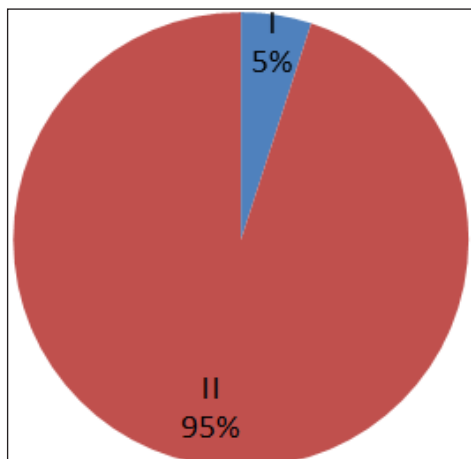


Figure 3. Pie Chart of Social Distancing

Conversation regarding COVID-19 and Preventive Measures (Figure 4)

Have Knowledge

Mask use and social distancing prevent corona virus infection.

Problem of Mask use

- Mask causes breathing difficulty
- Mask decrease oxygen (O₂) and increase the carbon dioxide (CO₂)
- Mask increase the chances of infection

Asymptomatic or Pre-symptomatic or Healthy Status

- No need to use mask and social distancing if symptoms are absent
- If not infected, no need to use a mask and social distancing

Age

Corona virus causes problems only to elders and children.

Emphasis on Social Distancing

No need for mask use if social distancing \geq 1meter maintained.

Immunity

- If maintained body immunity, corona virus cannot infect
- If vaccinated for COVID-19 than Corona virus cannot infect

Freedom or Arrogance

Would not use a mask even if got infection or chances of infection.

Business of Conspiracy

- Government is doing for business; preventive measures do not help from Corona Infection
- Corona virus is nothing new or serious but a conspiracy

Avoidance of Attention

- Carrying mask just to avoid the attention of people working for the authority
- Carrying mask just to avoid the penalty imposed by the administration

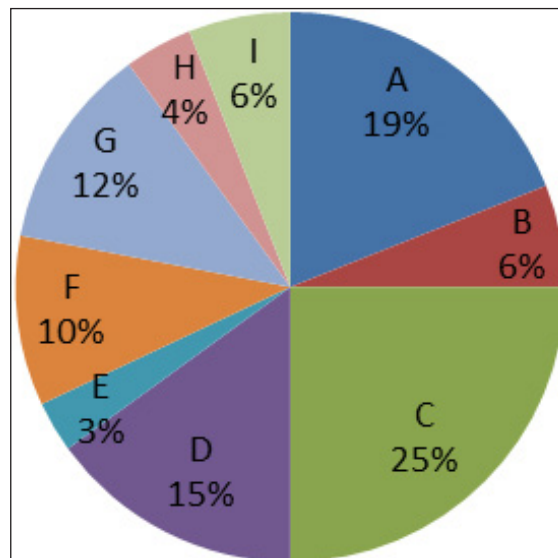


Figure 4. Pie Chart of Preventive Measures

Discussion

The severe acute respiratory syndrome corona virus (SARS-CoV-19) primarily spread among people through contact routes and respiratory droplets as based on current evidence. The later information suggested the potential airborne spread of the virus in a close environment with air recirculation.⁴ After that it was claimed to be airborne in close communities. The vaccination for COVID-19 also does not ensure 100% protection against the corona infection or prevention.

The NPIs are to break the transmission chain. Social distancing, even a minimum of 1 meter, has not been maintained by everyone. Social distancing practice of <1 meter distance reduces the chance of transmission to 12.8% and \geq 1 meter further reduces to 2.6% and that 2 meter distance might be more effective.⁵ Maintaining of a minimum 2 meter social distance has not been observed even though advised by the authority.

The findings regarding masks explain inadequate knowledge, casual attitude about the correct way to wear masks or the ignorance of people, besides the knowledge of correct use. Among those who wear masks correctly too, some do not know what should not be done after wearing the mask. Existing literature shows that proper use of facemask reduces the chance of transmission to 3.1% where facemask not in use makes transmission rise to 17.4% and irrespective of setting whether used by health care workers or people in the community.⁵

People have different understanding or views on COVID-19 and its preventive measures. The use of a facemask does not cause breathing difficulty in a healthy person. Facemask had been used by health professionals every day at work without much difficulty. People having a breathing problem, age less than 2 years, or those who need assistance to remove the mask or incapacitated are advised not to wear the mask.⁶ SARS-CoV-2 is about 60-140 nanometers (nm),⁷ which is 260 to 600 times larger than CO₂ (size 0.33 nm), and O₂ is even smaller.⁸ It is unlikely that CO₂ retention between the mask and face occurs to the extent that causes hypercapnia after wearing a mask. The mask still is porous enough to allow free flow of CO₂ and O₂ through barriers. People did not specify which types of the mask were referred. Indeed, the mask does not impact much on physiological respiratory functions after wearing for a short period among health workers.^{9,10} N95 mask has been found safe and comfortable for use in children at rest and on mild exertion.¹¹ The frequent touching of mask without hand wash, which might be the explanation of wearing mask increases the chance of infection.

Symptomatic or pre-symptomatic or healthy status and age as a criterion for deciding mask use or social distancing practice by people reflect their lack of in-depth knowledge about COVID-19 transmission. The pre-symptomatic or asymptomatic period transmission is one of the drivers of epidemic growth of COVID-19.¹²⁻¹⁶ Peak viral load (infectiousness) has been observed 2 days prior to the beginning of symptom and on the first day of symptom and estimated up to 44% transmission during the cases' pre-symptomatic period with considerable family clustering, active case, and quarantine outside the home setting.¹⁷ The older are though more prone to have a serious infection, age does not prevent younger from infection.⁵

The emphasis on immunity or social distancing might have arisen from the fact that these preventive measures issued by authority are unfamiliar new practices in India at the community level that emphasizes alternatives over mask. The difference in social classes of people is also a very important factor in taking steps by individuals during a crisis, that is, whether stay at home or earn money to survive.

It is also observed that preventive measures were perceived as an attack on their freedom by people. COVID-19 is a serious health issue for those carrying mask just to avoid attention. Serious health issue means high mortality that could be their perception. The conspiracy or business view is reflected in the perception of people over COVID 19 situation as an attempt by the government to cover failure or as a diversion attempt.

The start of unlocking, the direction of zone wised dos and don'ts by authority gave the public kind of relaxation in their routine life. It can be assumed that it also encouraged

people to disobey or abuse order, while it was being done to address the socio-economic concern. The reluctant attitude of people towards preventive measures make them infected easily in-crowd as high chances to encounter the asymptomatic infected person or act as a carrier. It also made it vulnerable to people engaged in delivering essential services due to regular exposure to the asymptomatic individual working place.

Universal use of facemask, social distancing and safe measures can considerably decrease the danger of family COVID-19 transmission irrespective of family size or crowding.¹² It is also uncertain that people who are not following the preventive measures are completely healthy or not suffering any morbid condition. The interpretations of information in a different area that are reinterpreted by a second and third person have led such inaccurate or misleading information about transmission and creating information pollution. Available literature supports that a late surge of cases in the COVID-19 graph is the reflection of the public disobedient attitude since unlocking started. The late surge of the number of cases has challenged the containment measures and underscored the effectiveness of NPIs.

The limitation is that we cannot comment on the preventive measures practiced by people at home. The study did not focus on the range of people who do not follow the order of an authority.

Conclusion

The confusion due to proper information to the population, new unfamiliar practices, serious disease means high mortality perception, attack on freedom and diversion of the real issue in understanding the ongoing health crisis led disobedient attitude towards preventive measures. It is evident that the disobedience attitude caused a late surge of COVID-19 infection.

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