

COVID SHIELDING (Preventive Measures of COVID-19)

ABSTRACT

COVID-19 had a lot of lessons to tell, and one of the most interesting was how difficult it is to manage a deadly, fast-moving disease in a community that is closely tied together by mass transportation, mass consumption, and mass media. As the largest pandemic to have occurred in the "digital-mass society" period, COVID-19 demonstrates how quickly a virus can spread through the "masses" despite the many steps taken by public health authorities to limit its spread. The primary measure most in use by health officials during COVID-19 pandemic is preventing person to person spread of disease by creating a firewall between uninfected and infected masses. COVID-19 had a lot of lessons to tell, and one of the most interesting was how difficult it is to manage a deadly, fast-moving disease in a community that is closely tied together by mass transportation, mass consumption, and mass media. As the largest pandemic to have occurred in the "digital-mass society" era, COVID-19 offers an insight on how quickly a virus can spread through the "masses" despite the many steps taken by public health authorities to limit its spread. **MATERIAL AND METHOD:** The material required for the review was taken from the databases of Pub Med, Web of science, the from the website of World Health Organization and the patients data of SMHRC and DMMC Wanadongari Nagpur. **Keywords:** COVID-19; preventive measures; isolation; quarantine; community; pandemic

INTRODUCTION:

Isolation, quarantine, social distancing, population confinement, hand-washing, masking, and vaccination are among the resources they have at their disposal to achieve the aforementioned aim. Many of these techniques are actually being used on a massive scale around the world. This paper describes these tools and discusses their advantages and disadvantages, as well as the position of the media.

Corona viruses are a type of virus with small spikes that resemble a crown, or "corona" in Latin. Just seven corona viruses are known to infect humans and cause disease. The SARS-CoV-2 corona virus is responsible for the COVID-19 pandemic. It can cause a variety of diseases, including moderate, highly infectious infections of the nose and throat, as well as serious infections of the respiratory organ. When an infected individual coughs, virus-laden droplets splatter, aiding in the infection of others. It is visible that Corona virus transmit best in enclosed spaces, when people are together.. While, as of May 2021, scientists all over the world have discovered drugs and vaccinations with some success, there was no drug available in 2020, and even today, when many cures and advances have been made by leaps and bounds, the best and most powerful tool that our society has against this virus is prevention of its spread.

COVID-19 had a lot of lessons to tell, and one of the most interesting was how difficult it is to manage a deadly, fast-moving disease in a community that is closely tied together by mass transportation, mass consumption, and mass media. As the largest pandemic to have occurred in the "digital-mass society" era, COVID-19 offers an insight on how

quickly a virus can spread through the "masses" despite the many steps taken by public health authorities to limit its spread. The primary measure most in use by health officials during the COVID-19 pandemic is preventing person to person spread of the disease by creating a firewall between uninfected and infected masses.

Isolation, quarantine, social distancing, population confinement, hand-washing, masking, and vaccination are among the resources they have at their disposal to achieve the aforementioned aim. Many of these techniques are actually being used on a massive scale around the world. This paper aims to explain how a variety of methods are being used around the world to control the novel coronavirus. It looks at the application and meanings of social distancing initiatives like public meeting bans and the regulation of personal hygiene measures like mask usage to combat the deadly epidemic. The paper also stresses on how the media plays a pivotal role in promulgating public health information and education.

MASKING -

Masking is an effective way to prevent the spread of saliva and respiratory droplets from one individual to the other, as well as from a human to the atmosphere and the environment to the vulnerable. In a study comparing the number of COVID-19 clusters in mask-on settings, such as the office, to mask-off settings, such as restaurants, bars, gymnasiums, and other large gatherings of people sharing food, beverages, and instruments, it was discovered that mask-off settings allowed for exponential sharing of saliva and respiratory droplets compared to mask-on settings¹. COVID-19 leads to high degree of viral load in respiratory secretions and saliva, even in potentially asymptomatic or pre-symptomatic people who act as virus shedders.

As a result, community-wide mask use, regardless of symptoms, rather than just infected individuals wearing masks, not only helps to prevent virus spread but also acts as a source control measure. When entering crowded, enclosed spaces such as grocery stores, shopping malls, public transportation, and offices, wearing a mask should be considered. A Lancet study² highlighted how due to several inconsistencies in WHO's initial January 2020 guidance report for COVID-19, health ministries of several countries at first, advised against wearing masks (for non-infected people). The Ministry of Health and Family Welfare of India in its initial guidelines, released in March 2020³, did not recommend mass use of masks for healthy individuals to prevent infections but then later in April 2020 updated their guidelines, asking citizens of India to wear a mask each time they left home.

MATERIAL AND METHOD

The material required for the review was taken from the databases of Pub Med, Web of science, the from the website of World Health Organization and the patients data of SMHRC and DMMC Wanadongari Nagpur.

DISCUSSION

• CLEANING/DISINFECTION AND HAND-WASHING -

The general public is advised to constantly sanitize their hands diligently and carry a portable hand sanitizer with them at all times. Many organisations have produced posters and brochures on all aspects of COVID-19 security, which are widely used around the world. The World Health Organization (WHO) and other related health organisations have created visual aids such as videos and posters to illustrate proper hand hygiene in society. These posters, upon circulation helped in raising awareness among various communities.



Fig. 1. Hand washing technique

Since a greater number of people in countries like South Korea and Japan carry hand sanitizer and are used to wearing masks, the pandemic was brought under control much more rapidly. The exponential increase in cases continues in countries where such behaviour is not seen.⁴

• ISOLATION AND SOCIAL DISTANCING -

Isolation is the practise of separating sick people with infectious diseases from healthy meant to protect the other. It is most often performed in hospitals, but it can also be performed at home. Patient isolation is particularly effective in interrupting transmission if early detection is possible before overt viral shedding. The incubation period for SARS-CoV-2 is 14 days, with viral shedding peaking once the patient is severely ill. Researchers would have more time to identify and differentiate cases if the incubation period is longer.⁵

Social distancing is especially useful in situations where group transmission is suspected but the linkages between cases are unknown, and where limiting exposure to only those who have been exposed is thought to be inadequate to avoid further transmission.

• QUARANTINING AND COMMUNITY CONTAINMENT -

The incubation period was finished in forty days, enabling previously asymptomatic cases to become symptomatic and thus be identified. People who are suspected of

having been exposed to an infectious disease but have not yet become ill, either because they have not been infected or because they are still in the incubation phase, are subjected to quarantine. If symptoms of disease occur, they must be isolated immediately in a hospital that specialises in treating serious respiratory illnesses. It works best in situations where cases are easily identified and links are quickly listed and traced.

If voluntary quarantine is ineffective, “community broad containment” or mandatory quarantine for all is enforced. Except for occasional communication to ensure required supplies, it is a quarantine with a few exceptions intended to restrict personal interactions. Given the greater number of individuals involved, enforcing community-wide containment strategies is much more difficult. This type of implementation necessitates close collaboration between law enforcement agencies at the local, state, and national levels. If there is a violation, legal action will be taken. Quarantine is an effective tool for reducing both the number of sick people and the number of people who have died from the disease. A statistical analysis of the spread of COVID-19 in Italy revealed that the pandemic could not be contained in the absence of strict quarantine laws. According to findings reported in a Cochrane Library report, quarantine can theoretically reduce the number of infected people from 81 percent to 44 percent and the number of people who die from 61 percent to 31 percent.⁶

In response to the potential pandemic, Prime Minister of India, Narendra Modi ordered a complete lockdown (barring essential services) from 25th of March to the 31st of May. All these measures significantly helped in curbing the pandemic situation in India, and perhaps are also a giveaway of why India was faring much better in early 2020 than in early 2021. As of May 1st, 2021, India is recording more than 4,00,000 cases on the daily, as, in between, for a period of time, the government of India had lifted all the lockdown curbs. Hence questions like, “When will the restrictions get lifted?” “Should the restrictions remain in place until everything goes back to ‘normal?’” remain unanswered⁷.

Quarantine and travel restrictions too come at a price, loneliness, uncertainty, indignation, dissatisfaction, boredom, and a constant sense of inadequacy can result from advisory and approved measures to minimise transmission, such as school and work closure. While these policies are justified in order to protect society's best interests, still they do place a substantial burden on individuals and implicitly violate the basic human right to free movement. According to reports, during quarantine, a rise in domestic violence and substance misuse was also seen. There is also negative economic impact, while some companies let their employees “work from home”, many cannot afford that option. Quarantine also leads to many daily wage workers losing their jobs.⁸

- **VACCINATING -**

SARS-CoV-2 antigen spikes embed in and fuse with host cells in the body, allowing the virus to hijack the host cell's machinery to duplicate its own genes, which it stores on

RNA (meaning they infect many hosts and replicate quickly in those hosts, which results in more mutations). This is why vaccines are necessary, 2021 brought a new hope for putting a stop to the pandemic, vaccines.

The media plays a very eminent role in the promulgation of information related to the pandemic. Along with making people aware of the developments taking place it also educates them by providing information. It aided in coronavirus disease tracking and kept everyone updated. The WHO and MoHFW were able to intervene quickly thanks to the media, allowing public health communications to reach a wider audience. Adaption of good health practises such as increased hand washing, use of face coverings, and social distancing has seen an upward trend in the promotion of health and hygiene practises worldwide. People were encouraged to use telehealth to fulfil their healthcare needs, and the media reiterated illness-prevention recommendations on a regular basis. Regrettably, it also provided a forum for politicians and fake doctors to promote unscientific remedies and unverified drugs, as well as biases directed at specific groups of people. In today's world, mass media plays an important role because it can provide a unified voice for all public health messages, detailed healthcare education guidance, and rigorous social distancing techniques while also maintaining social connections⁹.

Case detection (for which increasing laboratory test capacity and developing new testing techniques are important) is critical for reducing infection spread at the community level. Around the world, various strategies such as rapid-testing kits, serologic procedures, and self-collected specimen tests are used to detect outbreaks, which aids in adherence to isolation rules), isolation, and touch tracing of positive cases, as well as quarantine for those that have been exposed. A less extreme alternative allows public places to remain open, but it requires additional precautions such as staggered operating hours, strict adherence to sanitation laws, and the wearing of masks. At airports, train stations, and bus stations, as well as the entrances to major city buildings, temperature checks have been introduced (like hospitals, banks, or law courts).¹⁰⁻¹⁵

The idea that towns, crowding, and epidemics are linked together isn't new; it's been known for centuries that when a large number of people are crammed together, diseases always follow. The difference between a protected home and an unsafe public space was highlighted in Covid-19. Preventive measures and vaccination are currently being used to minimise the spread of cases. Early detection, diagnosis, isolation, and treatment are deemed appropriate to avoid further spread. Patient isolation and infection surveillance are stressed in preventive procedures, as are appropriate steps to be taken during diagnosis and clinical care of an infected patient.¹⁶⁻²¹

Ethical Approval:

As per international standard or university standard ethical approval has been collected and preserved by the authors.

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