



Repercussions of mass gathering: COVID-19 Pandemic

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ABSTRACT

COVID-19 is a pathogen which is transmitted by the respiratory route may be sufficient enough to prove that mass gatherings, mass migrations and other types of clusters play a menacing role in the spread of contagious diseases. Globally, the source of several infectious diseases includes mass gatherings for sports events, religious events, concerts etc. People participating in such clusters as religious pilgrims, Olympic spectators and others becomes a carrier for leading to spread of disease. So any social gathering relating to religion or any other should be banned—guidelines developed by WHO are vital data for central organizations for formulating the multitude planning for a cluster. Risk evaluation, response, and monitoring are the basis of preparation; the International Organization for Standardization (ISO) 31000 is a well-accepted risk management methodology. In India, control and preparedness are dependent on the state Government because of Nipah virus which was experienced by Kerala in 2018. Hence this state can maintain low mortality because of the use of contact tracing, social distancing and avoiding clusters. All the pandemic has made us realize the need to respect the species, social and environmental relationships to live and flourish. The epidemiological investigations should be carried out timely to confirm the cluster belonging to a particular family, workplace or public area. The strategies such as the reversal of social gatherings (such as work from home and home-schooling), social distancing and cancellation of social events can prevent mass gathering and a global threat of an epidemiologic expansion of disease outbreaks.

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INTRODUCTION

Coronavirus was first found in 1965 in nasal washings of a male child. After this discovery, many other strains of coronavirus were found, which were considered labelled harmless pathogens, causing common cold and mild upper respiratory illness (Anand *et al.*, 2020). At the beginning of December 2019, the first case of pneumonia of unknown origin was experienced in the city of Wuhan. COVID-19 is a pathogen which is transmitted by the respiratory route may be sufficient enough to prove that mass gatherings, mass migrations and other types of clusters play a menacing role in the spread of contagious diseases. In December, the spring festival

of China was taking place accompanying a massive mass gathering (Ebrahim and Memish, 2020).

WHO defined mass gathering as “Concentration of people at a specific location for a specific purpose over a set period which has the potential to strain the planning and response resources of the country or community” (Escher, 2020). Globally, the source of several infectious diseases includes mass gatherings for sports events, religious events, music concerts, etc. (McCloskey et al., 2020). Since such clusters create a massive centre, they have the potential to spread the contagion. People participating in such clusters become carriers. People participating in such clusters as religious pilgrims, Olympic spectators and others becomes a carrier for leading to spread of disease.

Impact of Mass Gathering

Such mass gatherings have been proven responsible for the outbreak of COVID-19 in the epicentre of Wuhan, China (Ahmed and Memish, 2020). Latin America celebrated a carnival, which had a high number of people participating both nationally and internationally in February 2020, making it a COVID-19 transmitting gathering (Shah and Naqvi, 2020). Because of this, Italy reported its first case of COVID-19. One such scenario which fits the example of a mass cluster is of Diamond Princess, a huge cruise ship from Japan carrying nearly 3700 people was quarantined, where social distancing was nearly impossible leading to COVID-19 outbreak in the ship (Memish et al., 2020). Till now, Malaysia has recorded the highest number of COVID-19 with approximately 35% of new cases from all South-eastern countries. The recent mass gathering that took place in Malaysia was the Sri Petaling event which was responsible for this spread of COVID-19, was from 27th February 2020 to 1st March 2020. As there was a lag time between this event and movement restriction with social distancing became responsible for more spread of this disease (Sahu and Naqvi, 2020). Malaysia is not only one country declaring cancellation of religious mass gatherings (Mat et al., 2020). Hajj is an annual missionary rite attended by more than two million Muslims from all over the world aiming to visit the holy city of Mecca, KSA. The significant numbers of devotees are of older population; hence the rate of mortality is a significant risk. So everyone needs to coordinate and take simple measures to reduce its spread and making the majority of the population aware of this fact (Srivastava et al., 2020). In 2020 Hajj ritual will start from the end of July up to early August. To control the spread, the Saudi Government has suspended the Umrah visa from 27th February 2020.

Moreover, this entire incidence indicates that mass gathering leads to its further spread. So any social gathering relating to religion or any other should be banned (Atique and Itumalla, 2020). Sports events such as the Olympics or World cup becomes a unique risk of infectious disease to both attendant and the nation hosting it. Cancellation or postponement may lead to economic loss to the host nation, but it is the surest way to protect its people from getting infected (Ahmed and Memish, 2020). This example tells us how mass gatherings play a role in transmitting disease through secondary attacks (Ebrahim and Memish, 2020). The World Health Organization (WHO) declared COVID-19 a pandemic on 11th March 2020.

Health care system on future public events

Mass gatherings may stretch health systems beyond their capacity; however, these events also present opportunities for long-lasting positive effects such as a stronger public health system after the event, or residents and visitors that are better informed about how they can protect themselves from certain diseases (Madhu et al., 2020). WHO provides the host governments with guidance and technical assistance to plan for mass gathering events. The goal is to make major international events as free from public health risks as possible and to create a positive public health legacy from such events. This includes lessons learned in the country for potential mass meeting activities, and an enhanced health care system. The WHO has given assessments, guidelines and recommendations on public health for several political, religious and sport mass meetings (Yezli and Khan, 2020).

Interim Guidance for Mass Gathering by WHO

“Key planning recommendations for Mass Gatherings in the context of the current COVID-19 outbreak (Interim guidance)” is published by WHO in response to COVID-19. This technical guideline is an updated form from the previous versions of reports: “Mass gatherings in the context of pandemic (H1N1) 2009 influenza” and “International meetings attended by individuals from Ebola virus disease-affected countries.” The WHO guidelines are a significant guide for governments on how to conduct cluster multitude planning. Risk evaluation, response, and monitoring are the basis of preparation; the international organization for standardization (ISO) 31000 is a well-accepted risk management methodology (Escher, 2020). The Riyadh conferences and *The Lancet’s* 2014 Mass Gatherings Medicine Series which was organized by WHO with many global partners working on mass gatherings has developed a complete proposal for direct-

ing the public health aspects of mass gatherings which has been updated with temporary vital recommendations. These recommendations are useful in consulting updated technical guidance on COVID-19 (McCloskey *et al.*, 2020). With a devotion to the guidelines of WHO for mass gatherings, governments have a minimal measure to avoid the outbreak of the coronavirus (2019-nCoV), improve their healthcare management, and to nourish peoples trust in their government (Escher, 2020).

Governments have planned three crucial duties concerning coronavirus-2019: Systematizing facilities with access to COVID-19 test kits, medical supplies and equipment, accurate and timely contact, and maintaining public confidence in their government. Consequently, many countries, for some time, have banned flights to China. Lockdown has been imposed in Wuhan city of China as well as the entire Hubei province. Because of this lockdown mass gatherings are avoided, and a significant decrease in its spread is seen. A strict quarantine of people in high-risk areas tends to have a possible decline in COVID-19 distribution. Many countries are closing their borders, bringing back their citizens, and discouraging tourism with the suspension of air travel across the continent (Lau *et al.*, 2020) as a precaution use of facemask is seen in almost all parts. A fair number of attendants of mass gatherings use a facemask, and the practice is more likely among hospital staff, including doctors and nurses. Effectiveness of such facemask is still unproven for some respiratory disease; however, it should be used as a precaution. World Health Organization (WHO), have issued guidelines on mass gathering preparedness to decrease the possible risks (Barasheed *et al.*, 2016).

Interim Guidance for Mass Gathering in India

In India, control and preparedness are dependent on the state Government. Because of Nipah virus was experienced by Kerala in 2018 hence this state can maintain low mortality because of the use of contact tracing, social distancing and avoiding clusters. As Odisha is already prone to natural disasters crisis precautions was already there which was repurposed to avoid spread. Maharashtra government has used drones to keep an eye on social distancing and to avoid cluster formation during the lockdown and has raised awareness about the disease. States deserve to acknowledge India's COVID-19 response (Bawiskar *et al.*, 2020). But it is challenging to execute public health measures in places with overcrowded population and insufficient hygiene and sanitation. In Overcrowded areas, there are high chances of COVID-19 getting spread (Lancet, 2020).

In public health practice, the actual meaning of quarantine is a state, period, or place of isolation where people who are exposed to the infectious or contagious disease are placed, and isolation, on the other hand, means separation of persons who are known to be infected. Both isolation and quarantine can be by ones wish or imposed by law (Parmet and Sinha, 2020). Most studies have shown adverse psychological effects, including post-traumatic stress symptoms, confusion, and anger. Longer quarantine duration, fear of getting infected, frustration, boredom, insufficient supplies, lack of information, financial loss, and stigma are the stressors responsible (Brooks *et al.*, 2020).

Strategies to fight back the effects of mass gathering

Worldwide there is a need for support for the patient with dementia and their caretakers. People need not only physical protection of the virus but also psychosocial support. For this case, all mental health professionals, social workers, nursing home administrators, and volunteers should provide mental health care (Ahmed and Memish, 2020). All the pandemic made us understand the need to value the relationship between animal life, social life and the ecosystem to survive and thrive (Jachak *et al.*, 2020). Rapid urbanization and deforestation have created a brand new relationship between humans and wildlife and exposed humans to foreign organisms, often involving the consumption of exotic wildlife. The global experience is teaching that containment measures and aggressive contact tracing are mandatory to keep the infection under control until an approved treatment or a vaccine is available to the global community (Khanna *et al.*, 2020). Each person related to farming and wild animals is highest among developing countries that home many resistant infectious agents. Infectious diseases are the most usual health issue encountered in places of a cluster. From this COVID-19 pandemic, we should learn to prevent and manage such situations in future.

Mass gathering, which is a planned or spontaneously occurring event, can become a threat as an epidemiologic expansion of disease outbreaks. To prevent the spread of this pandemic, the strategies include the reversal of social gatherings (such as work from home and home-schooling), social distancing and cancellation of all forms of social events. To get through this pandemic cancellation of public events is must (Ebrahim and Memish, 2020). The epidemiological investigations should be carried out timely to confirm the cluster belonging to a particular family, workplace or public area. To prevent

the transmission of COVID-19, the close contacts of the patients must be quarantined for 14 days. For some instances, it is best to use thermal scanners to identify those who are feverish. The precautions one can take are maintaining hand and respiratory hygiene, testing the suspected subjects, isolation of infected individuals, social distancing, and following self-quarantine (McCloskey et al., 2020). The awareness of COVID-19 prevention is low in some rural areas, reflected by many mass gathering activities and delayed medical care-seeking after onset. It is necessary to strengthen health education and take control measures in the early period of epidemic.

CONCLUSION

COVID-19 has made us realize on national and religious grounds, the spread of pandemic through mass gathering events and also the possibility of an outbreak of other dreadful diseases. The mass gathering is not the ultimate measure to cure the pandemic but stands a vital component in breaking the chain reactions leading to communicable spread.

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Conflict of Interest

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