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COVID 19: Importance and Measures of Social Distancing

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ABSTRACT

COVID 19 a disease which is caused by severe acute respiratory syndrome corona virus 2 (SARS Cov-2) has been declared a pandemic by WHO (world health organization). It has already infected thousands across the world and will reach millions if not controlled. Though the disease has less than 5% mortality rate but due to its exponential spread it is dangerous and a threat to the world. Governments across the world have taken various measures to control the infection. Social distancing is one of the preventive measures which is helpful to control the disease spread. Social distancing should also be practiced by individual persons and there are multiple ways to follow it. Technology also plays a key role in practicing social distancing as through use of technology we can perform so many tasks without moving physically. Lockdown is one of the extreme measures of social distancing which a country's government has to take when disease infect large number of populations. There is no clinically approved medicine and vaccine for the treatment of COVID 19 as of today so we left with only preventive measures and social distancing has a critical role to play to prevent the spread of COVID 19.

KEYWORDS: Corona virus, Covid 19, Pandemic, Social distancing, community spread, Quarantine

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INTRODUCTION

Corona virus disease (COVID 19) started from city of Wuhan (China) in the month of December 2019. Clinically this novel corona virus known as severe acute respiratory syndrome corona virus 2 (SARS Cov-2). ¹As of today, it has more than 22,41,359 confirmed cases and around 1,52, 551 reported deaths. WHO has declared this disease as pandemic on March11, 2020. COVID-19 has its presence in more than 200 countries.² COVID 19 confirmed cases are growing at the rapid rate and now present in almost every country in the world. In United States of America number of confirmed cases has passed 100,000 and increasing by rapid rate. Europe is suffering more as they have more than 300,000 cases with death toll nearing 19,000. These are the parts of the world where health facilities are better than rest of the world and they are struggling to save lives. COVID 19 has started spreading in other parts of the world and in coming days the number of infected people may rise up to millions.

Healthcare professionals and pharmaceutical companies are trying to find a treatment for the diseases however there is no clinical accepted vaccine and medication available. Virus causing COVID 19 can spread through multiple ways. Person to person spread is where a healthy person comes into close contact with the infected one. Virus travels through respiratory droplets when infected person sneezes or coughs. These droplets can travel to nose, mouth and eye of the people and infect the person. Chances of spreading are high if infected person is more symptomatic (cough, fever and shortness of breath and in severe conditions may be severe acute respiratory syndrome and pneumonia). It can also spread through surfaces, At room temperature virus can survive on copper up to 4 hours, 24 hours on card board and 2-3 days on plastic and stainless steel. If a person touches the surface which has virus, one can get infected. ^{1,4} Social distancing is a set of steps which a person can take to prevent the spread of a contagious disease. World use this approach before at the time of Influenza pandemic of 1918-19.

EVIDENCE OF SOCIAL DISTANCING

Pandemic is not new for the world. Influenza pandemic of 1918-19 which has caused around 40 million deaths at that time and infected up to 500 million people (one third of world population). This pandemic was not limited to US and Europe. It did spread in other parts of world. There are evidences of the disease in far remote islands also. Outbreak of disease was severe with the death rate of more than 2.5 percent in infected people. Influenza pandemic 1918-19 was more fatal than other influenza epidemics. ^{6,7}During

influenza pandemic many social distancing measures were taken by government which includes closing of entertainment places like movie halls, closing schools and closing of religious places. There were strict measures for quarantine a patient and shifting of patients from hospitals.⁸

SOCIAL DISTANCING

Social distancing is a non-pharmaceutical preventive measure to avoid the transmission of pathogen between infected and non-infected. This helps in breaking the chain of transmission of disease to larger population.⁹

Why social distancing is important to fight Covid 19

COVID 19 is a threat once it reaches to community spread, In this stage infected person has no history of contacting infected person however the person is infected once this stage arrives in a community, This disease COVID 19 spread exponentially and within days the number of infected people shoot up from hundreds to thousands. As per the world health organization numbers COVID 19 has infected one hundred thousand people in the world by first week of March 2020, it took more than 3 months to reach hundred thousand cases however in Two weeks the cases doubled to 200,000 and it took just a week to reach 400,000 from two hundred thousand. Even developed countries in the world do not have sufficient resources to treat thousands of patients, there are only limited number of ventilators present per hospitals so treating the patients on time is difficult. Number of deaths due to COVID 19 has crossed twenty-five thousand and numbers are increasing on every day. The panic can be seen if you talk to health care professionals or the people who are frontline workers. Important thing is to note here is to stop the disease spread before it goes into exponential spread stage. Social distancing is one of the key measures by which community spread can be controlled and we can break the disease's exponential spread.²

Social distancing is important for two reasons one is virus for this disease is contagious and spread through person to person and through surfaces, second reason is there is no vaccine or define treatment to treat this disease. If people follow the social distancing practices, virus cannot spread and affect more bodies which will help to contain the virus. Once spread of diseases is controlled, health professionals work diligently on limited number of infected people and they have sufficient time and resources to treat them. The way to fight this pandemic is identify the infected people, isolate them from the healthy people, stop symptomatic or infected people to contact with normal people using social distancing measures and break the chain of spread.¹⁰There are multiples ways to understand this, So for the proper understanding we can categorize social distancing in two categories.

- 1. Individual measures for social distancing
- 2. Government measures for social distancing

Individual measures for Social distancing

These are the steps which an individual need to take to avoid spread of a disease. One can avoid going to public places, avoid going to the places of large social gatherings and events where you can expect a big crowd. Avoid non-essential public transport like metro trains or buses. If there is an option to work from home, do that. Avoid going to morning walks in public gardens. Use e-commerce websites like amazon to order necessary grocery and medicines. If you need to go out for necessary grocery shopping, a safe distance can be maintained in the queue. Avoid going to malls, megastores, pub, restaurants, house parties. Avoid going to sporting events like football, cricket etc. Avoid celebrating festivals in public. Avoid family functions and use technology to connect with your loved ones, use video calls options like facetime, Facebook messenger, WhatsApp, google duo etc. Use digital ways like apple pay, amazon pay, google pay etc to pay to merchants and avoid any currency paper note/coin exchange. Use Google and apple maps to choose your way to destination and follow less crowded routes. Ask kids to switch to the web-based learnings tutorial rather than study groups where they have to be physically present. Do not allow kids to play in common area and switch to indoor games. Avoid handshaking and hugging while greeting people. Use stairs instead of lifts to reach your apartment if you are living in big building, in case your floor is higher face the wall of the lift when using it. Maintain a distance of 6 feet while going out in public if you think someone is showing symptoms of the disease. While using public transport or cabs leave one seat between you and another passenger. While standing in the queue maintain 2 to 3 feet distance. These social distancing measures are important in these times as they help to reduce the spread of the disease. 11-13

Government measures for social distancing

These are the steps which a government can take to reduce the spread of the diseases. Closing malls, pubs, restaurants, Put a check on travel (air, rail and road) and allow only essential travel within and outside the country. Closing of all educational institutes (school, universities). Postpone exams for government and large private institutions. Closing of food and drink establishments (cafes, restaurants), pubs, bar, clubs, casinos. Closing of entertainment places (concert halls, theatres, movie halls). Closing of

massage centers, spas, saloons. Closing of museums and galleries. Closing all religious places where people assemble for daily prayers. Maintain less crowd in government offices and ask employees to work on rotation basis if work from home is not possible. Discuss with private organizations and explore work from home options for their employees. Sanitization drives on daily basis at public places like airports, railway stations, bus stands, metros, religious and social places. Direct local authorities to discuss with general public and ask them to postpone social gatherings like marriages, farewell parties, big birthday parties and any kind of large crowd events. Ask all the celebrities to cancel the live shows and concerts and connect to their audience using technology, they can switch to YouTube live, Facebook, twitter, Instagram and other social media platforms. Ask religious and opinion leaders to guide their followers to stay away from crowded places and connect through social platforms. Direct trade unions to regulate the operational hours.¹³⁻¹⁴ Mandatory Quarantine – Quarantine is a restriction on movement of the people who are exposed to the infected, Quarantine is done for the ones who are not showing symptom of the disease and are not ill. Quarantine is necessary as every pathogen has an incubation period and if a person is exposed to the infected, symptoms can be developed after few days. Government direct all the travelers who are coming from affected places to stay quarantine for some days so that chances of spreading can be avoided. Government does the tracing of people who have exposure with the infected person based on the travel history of infected person. Authorities can ask people for home quarantine however travelers coming from the places where disease is widely present, Government setup dedicated quarantine facilities at large scale and test all the people for infection. ¹⁵⁻¹⁷

Lockdown – These are the extreme social distancing measures which a government must take when there are possibilities of a pandemic outbreak and people lives at stake, In Lockdown government bans all non-essential activities. People need to stay at home and come out only for essential or emergency needs. Government issue passes or special permit to the people who are involved in essential services. Government use police or military's help to stop movement in affected areas. As COVID-19 has affected the world, several countries have implemented stringent lockdown on parts of countries. Some has locked down whole country to prevent the spread of disease. Recently India has followed a one-day curfew on 22 March 2020 in whole country. They named it people curfew. There is no enforcement from the government however a request from the top leader of the country to practice complete social distancing for a day. The prime minister of India has requested all citizen to stay at home for a day and do not come out on streets, leave home only if it is for essential service or emergency.¹⁷⁻¹⁹

Singapore is a good example that how social distancing measures worked to avoid the spread. Country got first confirm case in last week of January 2020 and as of March 26, 2020 they are having less than 500 active cases of COVID 19.²⁰First local spread case confirmed in Singapore on February 4, 2020 as per ministry of health Singapore.²¹On February 8, 2020.Singapore announced that large events needs to be cancelled or deferred if non-essential.²²On March 3, 2020 Singapore government made it mandatory to stay home for the persons who have travel history from affected countries.²³Further they took extreme steps of social distancing like locking down all ports.²⁴ It is the result of above measures that Singapore able to control the spread of the disease.²⁵Country has enforced the strict measures at very early stage and able to control the spread. It is a great example because the population density of Singapore is more compare to most of the countries and if COVID 19 spread would not have been controlled at the right time it would have become dangerous.

CONCLUSION

COVID-19 is contagious and there has been no vaccine developed yet, we are now seeing the devastation this virus is causing to the world as per the numbers it has infected more than 22,0000 people and claimed more than 150000 lives across the world as of March 28, 2020. The impact of COVID 19 is very high and developed nations are struggling and they are going out of capacity for required health care facilities to treat the infected persons. Social distancing is a key preventive measure where we can isolate infected and suspected people and contain the disease. There are different measures which we need to take to practice social distancing as an individual and abide by them, simultaneously each country's government need to enforce social distancing measures to stop the spread the disease. Technology like social media, web based educational forums, e-commerce websites and payment apps will be the savior and help to adopt social distancing practices. This is high time for the world to take measures to prevent the spread of the disease. World health organization, social, political, religious and government leaders are requesting to general public to practice social distancing. It is responsibility of every individual to practice social distancing and follow the social distancing guidelines provided by the government. We can help our doctors and health workers by not getting infected in these crucial times and social distancing has a critical role to play to save ourselves from COVID 19. **CONFLICT OF INTEREST**

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REFERENCES

- 1. Kampf G., Todt D. , Pfaender S., Steinmann E.Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. J Hosp Infect .2020;104(3):246–51.
- 2. Open database: Who's Certified [database on the Internet]. Coronavirus disease (COVID-19) Pandemic, [cited 2020 april 19] Available from :<u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019</u>
- 3. Open database: Who's Certified [database on the Internet]. COVID-19 situation in the WHO European Region,[cited 2020 april 19] Available from https://who.maps.arcgis.com/apps/opsdashboard/index.html#/ead3c6475654481ca51c248d52ab9c61
- 4. National Institute of health, [homepage on the Internet] COVID-19 is an emerging, rapidly evolving situation. [updated 2020 March 17; cited 2020 March 29]. Available from <u>https://www.nih.gov/news-events/news-releases/new-coronavirus-stable-hours-surfaces</u>
- 5. Dalton CB, Corbett SJ, Katelaris AL, Pre-emptive low cost social distancing and enhanced hygiene implemented before local COVID-19 transmission could decrease the number and severity of cases. Soc Sci Res Netw [Internet]. :1–8.https://ssrn.com/abstract=3549276
- 6. Taubenberger JK,The origin and virulence of the 1918 "Spanish" influenza virus. Proc Am Philos Soc.2006;150(1):86-112
- 7. Johnson NPAS, Mueller J. Updating the accounts: global mortality of the 1918-1920 "Spanish" influenza pandemic. Bull Hist Med. 2002;76(1):105–15.
- 8. Caley P, Philp DJ,McCracken K.Quantifying social distancing arising from pandemic influenza. J R Soc Interface. 2008;5(23):631-9
- Social Distancing Advisory by Ministry of Health & Family Welfare, Advisory on Social Distancing Measure in view of spread of COVID-19disease. Available from <u>https://www.mohfw.gov.in/pdf/SocialDistancing Advisoryby</u> <u>MOHFW.pdf</u>
- 10. Rochester Regional Health [homepage on the Internet] Why Social Distancing is so Important [updated 2020 March 23; cited 2020 March 29] Available from https://www.rochesterregional.org/news/2020/03/social-distancing-important
- 11. Open database: Who's Certified [database on the Internet]. Coronavirus disease (COVID-19) advice for the public, [cited 2020 april 19] Available from <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public</u>
- 12. National Public Radio [homepage on the Internet], It's Time To Get Serious About Social Distancing. Here's How 19 disease [updated 2020 March 17; cited 2020 March 29] Available from https://www.npr.org/sections/health-shots/2020/03/17/817251610/its-time-to-get-serious-about-social-distancing-here-s-how
- 13. Public Health England [homepage on the Internet], Guidance on social distancing for everyone in the UK [updated 2020 March 30; cited 2020 March 30] Available from https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-for-everyone-in-the-uk-and-protecting-older-people-and-vulnerable-adults
- 14. Gov.UK [homepage on the Internet], Government announces further measures on social distancing [updated 2020 March 21; cited 2020 March 30] Available from <u>https://www.gov.uk/government/news/government-announces-further-measures-on-social-distancing</u> Accessed on 28-03-2020
- 15. World Health Organization [homepage on the Internet], Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19) [updated 2020 March 19; cited 2020 March 30] Available from https://www.mohfw.gov.in/DraftGuidelinesforhomequarantine.pdf Accessed on 28-03-2020
- 16. Centers for disease control and Prevention [homepage on the Internet], About Quarantine and Isolation[updated 2020 Jan 27; cited 2020 March 30] Available From https://www.cdc.gov/quarantine/quarantineisolation.html
- 17. Wilder-Smith A, Freedman DO. Isolation, quarantine, social distancing and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. J Travel Med. 2020;1–4
- 18. Lau H et al.The positive impact of lockdown in Wuhan on containing the COVID-19 outbreak in China. J Travel Med [Internet]. 2020;001(714). Available from: http://www.ncbi.nlm.nih.gov/pubmed/32181488
- 19. PM India [homepage on the Internet], PM's address to the nation on combating COVID-19 [updated 2020 March 19; cited 2020 March 30] Available From <u>https://www.pmindia.gov.in/en/news_updates/pms-address-to-the-nation-on-comabting-covid-19/?query</u>
- 20. Pharmaceutical Technology [homepage on the Internet], Coronavirus in Singapore: COVID-19 measures and impact [updated 2020 March 27; cited 2020 March 30] Available From <u>https://www.pharmaceuticaltechnology.com/features/coronavirus-affected-countries-singapore-covid-19-2019-ncov-impact-tourismeconomy-travel/</u>
- 21. Ministry of Health Singapore[homepage on the Internet],Confirmed cases of local transmission of novel coronavirus infection in singapore [updated 2020 Feb 4; cited 2020 March 30] Available From https://www.moh.gov.sg/news-highlights/details/confirmed-cases-of-local-transmission-of-novel-coronavirus-infection-in-singapore

- 22. Ministry of Health Singapore[homepage on the Internet], Advisory for large-scale events amidst the novel coronavirus situation [updated 2020 Feb 8; cited 2020 March 30] Available From https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/advisory-for-large-scale-events-amidst-the-novel-coronavirus-situation-(8-feb-2020)93cc0bb1c8964f7a8a97d3202056bcdd.pdf
- 23. Ministry of Health Singapore[homepage on the Internet], Additional precautionary measures in response to escalating global situation[updated 2020 March 13; cited 2020 March 30] Available From https://www.moh.gov.sg/news-highlights/details/additional-precautionary-measures-in-response-to-escalating-global-situation
- 24. Ministry of Health Singapore[homepage on the Internet], Additional precautionary measures to prevent further importation and spread of covid-19 cases[updated 2020 March 13; cited 2020 March 30] Available From https://www.moh.gov.sg/news-highlights/details/additional-precautionary-measures-to-prevent-further-importation-and-spread-of-covid-19-cases
- 25. CNBC news[homepage on the Internet], Countries in lockdown should do what Singapore has done, says coronavirus expert[updated 2020 March 31; cited 2020 Apr 2] Available From https://www.cnbc.com/2020/03/31/countries-in-lockdown-should-try-what-singapore-is-doing-coronavirus-expert.html
- 26. Open database: (2020). Who's Certified [database on the Internet]. COVID-19 situation in the WHO European Region: https://who.maps.arcgis.com/apps/opsdashboard/index.html#/ead3c6475654481ca51c248d52ab9c61

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