

Social Distancing and COVID-19: Correspondence

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ABSTRACT

Social distancing (SD) has been promoted by countries around the world as an effective way to stop the transmission chain. Recently, the word physical distancing is promoted in place of SD, as people are encouraged to connect with each other on a social platform. The term SD although introduced in 21st century, its implication dates back to 5th century BC. The Book of Leviticus in Bible contains the earliest reference for social distancing.

Keywords: Aerosols, Highly infectious disease, Physical contact.

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Coronavirus disease 2019 (COVID-19) is a highly infectious disease caused by severe acute respiratory syndrome coronavirus-2 (SARS-Cov-2). This virus is the seventh human coronavirus identified till date. The main spread of this virus is through-

- Aerosols: When an infected person coughs or sneezes, virus-laden particles are expelled at a rate of around 40 km/hour and 160 km/hour, respectively. The larger particles travel for up to 2 m and fall on to ground almost instantly, while the smaller particles can travel for up to 6 m and can remain suspended in air for about 10 minutes in a well-ventilated area and for several hours in non-ventilated and enclosed spaces.¹
- Physical contact: When virus-laden particles fall on a surface, it can survive on it for a variable time. This can cause transmission to other non-infected individuals.²
- Feco-oral route: Virus particles have been known to found in feces and thus can be a potential mode of transmission.

Preventing the man-to-man transmission of this virus is the only way to effectively control this pandemic. Social distancing (SD) has been promoted by countries around the world as an effective way to stop the transmission chain. It involves keeping a certain distance from each other and avoiding gatherings in large groups. Recently, the word physical distancing is promoted in place of SD, as people are encouraged to connect with each other on a social platform. Although the term SD was introduced in 21st century, its implication dates back to 5th century BC. The Book of Leviticus in Bible contains the earliest reference for SD. It states "and the leper in whom the plague is, he shall dwell alone, the camp shall his habitation be". Later, during the Plague of Justinian (541 to 542), emperor Justinian enforced quarantine on the Byzantine Empire, including dumping bodies into the sea. Since then, SD has been implicated in various epidemics and pandemics like New York city polio epidemic in 1916, influenza pandemic in 1918, SARS outbreak in 2003, flu pandemic in 2019, and the most recent being COVID-19 pandemic. SD not only implies to avoid physical contact and maintaining appropriate distance from each other, but it also includes other measure such as closure of schools and workplaces, avoiding mass gatherings, and travel restrictions. Quarantine of suspects is also another aspect of SD.

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World Health Organization described SD during the 2009 flu pandemic as "keeping at least an arm's length distance from others and minimizing gatherings".³ During the COVID-19 pandemic, the

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Centre for Disease Control and Prevention defined social distancing as "avoiding mass gatherings and maintaining approximately six feet or two meters from others when possible". When this is combined with hand washing practices and good respiratory hygiene, it is considered the most feasible way to limit human to human transmission.

Since virus particle can travel up to 6 m, this figure of 2 m chosen seem to be questionable.

Social distancing although linked to have a positive outcome in COVID-19 pandemic is also associated with some serious repercussions. First, it comes with an economic cost to every sector of the community. There is a loss of currency flow and can result in serious detrimental effect on country's gross domestic product (GDP). Second, it can have an adverse effect on participant's mental health. Anxiety, stress, and depression are common outcomes, especially in people with preexisting conditions such as paranoia, obsessive compulsive disorder and anxiety disorders.⁴ Finally, it has also created a state of unrest in various sections of the community especially the teen age. There have been reports of protests against this from various countries such as, Belgium, France, United States, and United Kingdom.

In conclusion, it can be stated that however inconvenient SD seems, it appears to be single ray of hope during this COVID-19 pandemic. It is essential to combine it with other maneuvers such as frequent hand washing/sanitization and appropriate respiratory

hygiene in an attempt to effectively flatten the COVID-19 pandemic curve.

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