



Effect of Environmental Factors on COVID-19 Transmission

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ABOUT THE STUDY

Since the confirmation of a new coronavirus (SARSCoV2) infection in Wuhan, China in December 2019, it has become a major public health concern. As of July 31, 2020, a total of 17 million confirmed cases have been reported worldwide. Over 200,000 new cases of COVID-19 are reported daily. SARSCoV2 shows similar or slightly higher reproductive counts compared to Middle East Respiratory Syndrome Coronavirus (MERS) and Severe Acute Respiratory Syndrome Coronavirus (SARSCoV1). SARSCoV2 infection is widespread worldwide due to its high contagiousness. SARSCoV2 infection, also known as coronavirus disease 2019 (COVID-19), is characterized by respiratory problems and pneumonia. COVID-19 has also been reported to cause renal failure and, in severe cases, death [1].

Like other respiratory virus infections, COVID-19 infections can be affected by environmental factors such as climate. Numerous studies have been conducted to investigate the effects of meteorological factors on COVID-19 infections in various countries such as Brazil, China, Iran, Singapore and the United States. However, the impact of climatic factors on COVID-19 infection remains unclear.

The majority of confirmed cases were classified as domestic cases caused by community expansion. A wide range of climatic parameters such as temperature variables, rainfall, and relative humidity in South Korea is a convenient place to study the environmental impact of COVID-19 diffusion [2]. Therefore, the purpose of this study is to investigate the role of environmental factors such as climate and air pollutants in the transmission of COVID-19 by routinely analyzing the relationship between these variables and the COVID-19 cases confirmed in South Korea.

Many studies have reported a strong association between COVID-19 infection and temperature. We selected two areas where the temperatures were about the same during the survey period. However, inconsistent results were observed for the temperature variables between the two regions. COVID-19 infection increased with increasing temperature of SMR. However, the number of cases increased as the temperature of DGR decreased. As mentioned earlier, a religious incident at

DGR caused an outbreak between February and March 2020 [3]. A comprehensive epidemiological survey was conducted on the members who attended the event and those who had close contact with the group. After the outbreak of DGR, people strictly follow strategies for maintaining personal hygiene, such as wearing masks, using hand sanitizers, and increasing social distance, and local cluster and sporadic infections in SMR and DGR. Few cases have been reported [4].

Extensive epidemiological studies have revealed a large number of confirmed cases with DGR. This sudden increase in the number of cases identified in a short period of time will distort the statistical results associated with temperature variables. Due to the rapid infection of COVID-19 and widespread epidemiological surveillance, numerous outbreaks can occur due to religious events and social gatherings. Therefore, it should be taken into account that a large number of confirmed cases have been identified [5-7].

REFERENCES

1. Chen B, Liang H, Yuan X, Hu Y, Xu M, Zhao Y, et al. Roles of meteorological conditions in COVID-19 transmission on a worldwide scale. *MedRxiv*. 2020.
2. Pani SK, Lin NH, RavindraBabu S. Association of COVID-19 pandemic with meteorological parameters over Singapore. *Sci Total Environ*. 2020;740:140112.
3. Bashir MF, Ma B, Komal B, Bashir MA, Tan D, Bashir M. Correlation between climate indicators and COVID-19 pandemic in New York, USA. *Sci Total Environ*. 2020;728:138835.
4. Prata DN, Rodrigues W, Bermejo PH. Temperature significantly changes COVID-19 transmission in (sub) tropical cities of Brazil. *Sci Total Environ*. 2020;729:138862.
5. Ma Y, Zhao Y, Liu J, He X, Wang B, Fu S, et al. Effects of temperature variation and humidity on the death of COVID-19 in Wuhan, China. *Sci Total Environ*. 2020;724:138226.
6. Liu J, Zhou J, Yao J, Zhang X, Li L, Xu X, et al. Impact of meteorological factors on the COVID-19 transmission: A multi-city study in China. *Sci Total Environ*. 2020;726:138513.
7. Ahmadi M, Sharifi A, Dorosti S, Ghouschi SJ, Ghanbari N. Investigation of effective climatology parameters on COVID-19 outbreak in Iran. *Sci Total Environ*. 2020;729:138705.

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