EDITORIAL

OPEN ACCESS

Journal of Pharmacy Practice and Community Medicine.2020, 6(2):18-19• http://dx.doi.org/10.5530/jppcm.2020.2.6

e-ISSN: 2455-3255

Fecal-Oral Transmission of COVID-19 in India

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Although the spread of COVID-19 through droplets, surface contact and aerosolized transmission has been well-publicized, the fecal-oral route is yet another identified method of transmission. According to a meta-analysis by the New England Journal of Medicine, it was found that fecal viral shedding continues throughout the disease, even after nasopharyngeal tests appear negative. Moreover, gastrointestinal symptoms seem to be common for COVID-19 patients, with a prevalence of approximately 18%.[1,2] It was also found that patients with digestive symptoms experience significantly longer hospital stays.[3] As India's number of COVID-19 cases continues to increase, concerns about fecal-oral transmission are being raised in a country that has the highest open defecation rates in the world, where approximately 620 million people defecate in the open. It is a problem that comes with severe public health consequences, including diarrhea, high child mortality, spread of diseases, malnutrition and stunting of growth.[4] Public health officials should be concerned about how this will affect India's transmission of COVID-19.

On October 2, 2019, Prime Minister Modi proclaimed that India was Open-Defecation-Free (ODF) on Mahatma Gandhi's 150th birthday. It was a part of Swacch Bhaarat Abhiyan, a mission for a clean, hygienic India where toilets are easily accessible.[5] Lack of facilities, sanitary conditions and hygiene education are all causes for ODF in India. It is true that India has made major improvements in this area since 2012, when only 40.6% of rural households had access. Yet when one evaluates public health studies, a picture of a completely ODF India is not what appears. In 2017-2018, at the peak of toilet-building productivity, a survey found that in rural areas, 71.3% of households had access to toilets and of those households which did have access, 3.5% never used it.[6] Many in rural areas consider defecating in an open space to be cleaner than having a toilet inside the home.[4] Access to toilets seems also to be state-specific. For example, more than 50% of rural households in Odisha have no toilet.[6] A 2019 study found that 44% of Indians in rural areas of the states, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh defecate in the open and that 23% of those with private toilets continue to defecate outside.[7] Due to the crisis of Indian migrant workers fleeing quarantine to their villages, we should be concerned about the hygiene conditions to which they return and how they might transmit COVID-19 to those villages.[8]

Rural areas are not the only parts of India that are affected by lack of toilets. In another 2019 study that questioned adolescent Indian girls in a slum in Raipur of their utilization of toilets, only 38% had access to a private toilet, 51% to a public toilet and 9% were practicing open defecation due to cultural practices related to menstruation.[9] A colony outside of New Delhi reported not having a community toilet and that residents must journey to use another colony's toilet; upon arrival, due to overcrowding, they are forced to wait in a thirty-minute queue every morning.[5] Even if there is access, sometimes the facilities are not hygienic enough to convince people to use them. It seems the government focused on building toilets, but it didn't consider facility maintenance and sewage management.[4] In addition, squat latrines, which are common in many Asian countries, including India, lack covers which can spread droplets of fecal matter or toilet plume. Also, hands that aren't washed thoroughly with soap and water after visiting the toilet could be a source of virus transmission.[10] Unsanitary quarantine centers also pose a risk; in a New Delhi quarantine center, there were eighty people in the room with only a few clogged toilets. These conditions have caused some people to flee quarantine, which hinders healthcare workers' attempt to control the spread.[11] These numbers and conditions are worrying during normal times, but during a pandemic, the acceleration of the rate of infection of COVID-19 is of grave concern. Rural communities and those living in slums are at serious risk. Improper hygiene when using the toilet can also spread disease. For Indians that are able, they can do their part to avoid the potential fecal-oral transmission of COVID-19 by covering their squat latrines or Western toilets with a lid to avoid potential spread through toilet plume, washing their hands thoroughly and cleaning their toilets with a mild detergent regularly.[12,13] Hygienic washrooms play an important role in the prevention of disease transmission, and it is the authors' hopes that India will take the necessary steps to prevent fecal-oral spread of COVID-19 among its citizens.

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Received: 24 April 2020;

Accepted: 19 May 2020

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Cite this article as: Goff A, Ahmad A, Patel I. Fecal-Oral Transmission of COVID-19 in India. J Pharm Pract Community Med. 2020;6(2):18-9.