

A REVIEW STUDY ON SYMPTOMATIC OR ASYMPTOMATIC INFECTIONS OF COVID-19

Dr. Suresh R, Associate Professor¹,

Dr. Archana S, Associate Professor²,

^{1,2}Meenakshi Academy of Higher Education and Research

sureshd@mmchri.ac.in

Abstract

Latest proof shows that in humans, SARS-CoV-2 proliferates and fades symptomatic or asymptomatic infected individuals, the etioloidal agent that induces COVID-19. Subsequently, SARS-CoV-2 can be discharged and even opened through wastewater and sanitation systems on site. SARS-CoV-2 can be spread by the inhalation of polluted aerosols and goutlets in waste water plumbing systems in particular in heavily inhabited suburban areas in the case of faeces, waste water or wastewater systems on-site. Potential faecal-oral transfer has also been proposed along the human gut-wastewater diet spectrum. The detection in the human gastrointestinal tract, faeces, and untreated wastewater of SARS-CoV-2 RNA suggests probable COVID-19 faecal-oral transmission¹⁻⁴. A second line of recent evidence is extracted from a series of experiments focused on an overview of shelled disease, indicating SARS - COV-2 is prone to facal oral transmission and has a rigid shell and low shell disorder. The transmission path between faecal and oral has also gained substantial interest lately as an alternate transmission pathway but there is still no epidemiological data to support this theory. There could be a fast propagation of the pandemic via several COVID-19 transmission pathways.

keywords: COVID 19, Symptomatic, Asymptomatic, Pandemic

BACKGROUND

Previous analyses of SARS-CoV-2 RNA frequency and persistence in wastewater and faecal-oral theory, including spectrum and description of COVID-19 papers were examined belonging to the following: The data in a number of recent publications is diffuse, but there is still minimal systematic insights into existing evidence and their consequences for COVID-19 in the developed world⁵⁻⁸. The only exceptions are: a Perspective Paper on the possibilities and limitations associated with the use of wastewater-based epidemiology for COVID-19 surveillance in Africa; a recent Correspondence outlining conditions encouraging the dissemination of COVID-19 in low-income countries.

TRANSMISSION OF COVID

Faecal oral COVID-19 transmission in the development countries is due to the absence of effective obstacles to the transmission of the COVID-19 through wastewater, bad sanitation and hygienic practice¹⁻⁴. The faecal-oral mode of transmission changes the human exposure scenario, especially in developed countries due to numerous risk factors such as lack of safe, hygienic and sanitary drinking water. However, an extensive study of the faecal-oral theory and the possible effects of drinking, sanitation and hygiene (WASH) in developed countries is currently lacking in the literature. There are also limited analyses of possible faecal-oral routes and risk factors in developed countries for regulation of human exposure to COVID-19. As is the case with COVID-19 distribution, there is rapid progress in science on SARS-CoV-2 characteristics, incident and transmission^{9,10}. Thus, the national and foreign COVID-19 response agencies could fall behind science developments for updates and mitigation measures suggested. With this in mind, it is critical that the opportunities for recent empirical evidence and future functional consequences for countering COVID-19 are easily synthesised and shared. The present viewpoint is also timely since the COVID-19 epicentre, like African, South American and Caribbean nations, has now moved to developing countries.

WHO INTIATIVES

In January 2020 in the province of Wuhan, Hubei, China, a new coronavirus (2019-nCoV) was identified, reporting to the World Health Organisation, causing pneumonia-like disease. The disease caused by this virus, known as Coronavirus 2019 disease (COVID-19), spread

rapidly through China and in mid-March 2020 it was declared a global pandemic. At the time 118,319 laboratory-based cases and 4292 worldwide deaths were reported in the WHO (WHO, 2020) ¹¹⁻¹⁵. In September 2020, COVID-19 has affected more than 30 million people around the world, including in the United States at least 6.6 million. Given the wide-ranging effect of COVID-19, the whole population expects elevated levels of fear and anxiety. By late January 2020, 37 percent of Americans said they were "very worried about the new coronavirus," while there were only two outbreaks in the United States at the time (World Health Organization, 2020). In this same study, 62% of Americans said that the novel coronavirus was more worried than flu ¹⁶⁻¹⁸.

In reaction to the COVID-19 pandemic, in addition to elevated levels of fear, many shifts in behaviour were reported in the population. The WHO and the WHO and the Disease Control Centers have advised that the public follow a variety of protective behaviours, including regular hand washing, physical distances, masks and public facial coverings, in order to maintain and reduce the transmission of the COVID-19. While these habits are vital to good public health against a pandemic, they can, in the absence of a likely danger, often be maladaptive. Indeed, such behaviour is typical in people with an obsessive-compulsive disorder that focuses on contamination (OCD) ¹⁹⁻²². For example, people with infection-focused OCD should often bring hand sanitizers, wash their hands over, clean surfaces sometimes and use protections like gloves or masks to restrict contact with perceived contamination. While such habits are ideal in the sense of a pandemic, sometimes they become too maladaptive, lingering hours a day, causing elevated levels of anxiety and interfering in the functioning of daily life within the OCD system. A fearful and active reaction in the COVID-19 is an adaptive response to a real threat, especially at the early stages of the pandemic: quickly rising numbers of both cases and deaths, a high degree of confusion as to how and what the virus is circulating, no known cure or effective vaccine, strong media call on the danger from v The danger of COVID-19 varies from other common diseases like influenza, which have common risks or vaccines and which pose a low risk of otherwise healthy individuals. However, it is not yet understood what factors predict a person in a pandemic to be highly nervous. Previous studies into Ebola and H1N1 epidemic responses have showed that fear of contraceptives with the overall anxiety was linked. These experiments are however cross-sectional, which makes it impossible to determine causality

CONTAMINATION ANXIETY

Contamination anxiety would also possibly be a robust prospective indicator of COVID-19 discomfort. Pollution fear refers to the "intense and persistent feeling that an item / location / person is perceived to be soiled, impure, dirty, infectious, or harmful, as a result of contact, direct or indirect, is polluted or infected or is endangered²⁴⁻²⁷." The individual variations in contamination fear can, maybe even more than for other pathogens, be particularly robust predictors of concerns about COVID-19. The normal person afflicted with COVID-19 is expected to be spread by the virus between 2 and 2.5, whereas seasonal influenza individuals spread the virus to an average of 1.3 other people. Fear of infection should improve the ability of an organism to identify possible pathogens in the atmosphere and discourage them from doing so. Analysis has also shown that fear of infection is related to increased vulnerable disgust that can encourage future pathogens to be avoided. With regards to the COVID-19, it will be most likely to discourage encounters with aliens and prohibit contact with high-touch items like elevator buttons or PIN pads for those with a current fear of contamination^{3,4,16,28,29}.

DISCUSSION

The outbreak of COVID-19 is a worldwide pandemic which affects the lives of millions of people all over the world. The virus and how it functions are not yet much understood. Given tremendous confusion with the introduction of a vaccine, people are well aware of the need to strictly observe WHO recommendations on regular hand washing, the use of hand sanitizers and facial masks, social isolation, and, if possible, self-quarantine. Naturally, it is not shocking that everyone does not obey those rules and that at least not everybody is passionate about them³⁰⁻³². This kind of (No) Conformity is an intentional judgement focused on the specific nature of a person who is likely to be contaminated at least with an influential variable (loosely, her risk perception). All the same, she is more likely to demonstrate compliance if her risk level is high. This argument was recognised in the classic essay "People don't value the risks they face" regarding the influenza pandemic of 1918 in medicine. A wide scope of work in conduct science and economics documented how a whole variety of behavioural problems influence the accuracy of risk perception (such as optimism, overconfidence, and so on). This research focuses on one such bias: the "pervasive tendency for exponential function linearization to intuitively evaluate exponential functions," which

contributes to "a systematic tendency to underestimate value of a future value given the present value." Examination of the exponential growth pattern depends on the quantification of the difficulty of compound interest rates most people have. General difficulties in distinguishing between linear and non-linear systems is known and also at an early stage it is seen that in pre-kindergarten students are early and firmly seeking to grasp the relative value and impact on the sense of exponentiality of the numerical and the non-numerical form of data supply. Why is it important to consider the latest pandemic to research this partiality? This knowledge suggests that a few positive cases, if the disease is sufficiently infectious, could erupt into a pandemic³³⁻³⁶. The growth path is simply exponential in both situations. But do people see things like that? This, in other words, is EGPB, which may lead to a misunderstood chance of contamination where the action "reads the tea leaves" wrong. Our first effort is to record EGPB in the interpretation of disease data, to research how the outbreak occurs and how it is related to comply with the guidance on personal protection³⁷⁻⁴¹.

REFERENCES:

- [1] Li Y, Zhang R, Zhao J, Molina MJ. Understanding transmission and intervention for the COVID-19 pandemic in the United States. *Sci Total Environ*. 2020;748. doi:10.1016/j.scitotenv.2020.141560
- [2] Rohit A, Rajasekaran S, Karunasagar I, Karunasagar I. Fate of respiratory droplets in tropical vs temperate environments and implications for SARS-CoV-2 transmission. *Med Hypotheses*. 2020;144. doi:10.1016/j.mehy.2020.109958
- [3] Maqbool A, Khan NZ. Analyzing barriers for implementation of public health and social measures to prevent the transmission of COVID-19 disease using DEMATEL method. *Diabetes Metab Syndr Clin Res Rev*. 2020;14(5):887-892. doi:10.1016/j.dsx.2020.06.024
- [4] Morawska L, Tang JW, Bahnfleth W, et al. How can airborne transmission of COVID-19 indoors be minimised? *Environ Int*. 2020;142. doi:10.1016/j.envint.2020.105832
- [5] Nguyen NPT, Hoang TD, Tran VT, et al. Preventive behavior of Vietnamese people in response to the COVID-19 pandemic. *PLoS One*. 2020;15(9 September). doi:10.1371/journal.pone.0238830
- [6] Morens DM, Breman JG, Calisher CH, et al. The Origin of COVID-19 and Why It Matters. *Am J Trop Med Hyg*. 2020;103(3):955-959. doi:10.4269/ajtmh.20-0849

- [7] Ogoina D. Improving appropriate use of medical masks for COVID-19 prevention: The role of face mask containers. *Am J Trop Med Hyg.* 2020;103(3):965-966. doi:10.4269/ajtmh.20-0886
- [8] Khan MM, Parab SR, Paranjape M. Repurposing 0.5% povidone iodine solution in otorhinolaryngology practice in Covid 19 pandemic. *Am J Otolaryngol - Head Neck Med Surg.* 2020;41(5). doi:10.1016/j.amjoto.2020.102618
- [9] Romano-Bertrand S, Aho Glele L-S, Grandbastien B, Lepelletier D, for Hospital Hygiene FS. Preventing SARS-CoV-2 transmission in rehabilitation pools and therapeutic water environments. *J Hosp Infect.* 2020;105(4):625-627. doi:10.1016/j.jhin.2020.06.003
- [10] Zou H, Shu Y, Feng T. How Shenzhen, China avoided widespread community transmission: A potential model for successful prevention and control of COVID-19. *Infect Dis Poverty.* 2020;9(1). doi:10.1186/s40249-020-00714-2
- [11] Kimatu JN. The Negative Effects of the WHO COVID-19 Prevention Guidelines on the Human Immune System. *Biomed Pharmacol J.* 2020;13(3):1477-1481. doi:10.13005/bpj/2020
- [12] Mermel LA. Disposition of patients with coronavirus disease 2019 (COVID-19) whose respiratory specimens remain positive for severe acute respiratory coronavirus virus 2 (SARS-CoV-2) by polymerase chain reaction assay (PCR). *Infect Control Hosp Epidemiol.* 2020;41(11):1326-1327. doi:10.1017/ice.2020.286
- [13] Bellizzi S, Panu Napodano CM, Fiamma M, Ali Maher O. Drought and COVID-19 in the Eastern Mediterranean Region of the WHO. *Public Health.* 2020;183:46-47. doi:10.1016/j.puhe.2020.04.032
- [14] Durand-Moreau Q. WHO recommendations for preparedness and response to COVID-19 at the workplace, on March 23, 2020 [Informations de l'OMS pour la gestion de l'épidémie de COVID-19 en milieu de travail, au 23 mars 2020]. *Arch des Mal Prof l'Environnement.* 2020;81(3):219-221. doi:10.1016/j.admp.2020.03.832
- [15] Daye M, Cihan FG, Durduran Y. Evaluation of skin problems and dermatology life quality index in health care workers who use personal protection measures during COVID-19 pandemic. *Dermatol Ther.* 2020. doi:10.1111/dth.14346
- [16] Ruiz-Frutos C, Ortega-Moreno M, Allande-Cussó R, Domínguez-Salas S, Dias A, Gómez-Salgado J. Health-related factors of psychological distress during the COVID-19 pandemic among non-health workers in Spain. *Saf Sci.* 2021;133. doi:10.1016/j.ssci.2020.104996

- [17] Attal JH, Lurie I, Neumark Y. A rapid assessment of migrant careworkers' psychosocial status during Israel's COVID-19 lockdown. *Isr J Health Policy Res.* 2020;9(1). doi:10.1186/s13584-020-00422-0
- [18] Yalçın Bahat P, Kaya C, Selçuki NFT, Polat İ, Usta T, Oral E. The COVID-19 pandemic and patients with endometriosis: A survey-based study conducted in Turkey. *Int J Gynecol Obstet.* 2020;151(2):249-252. doi:10.1002/ijgo.13339
- [19] Gaidhane S, Khatib N, Zahiruddin QS, Gaidhane A, Telrandhe S, Godhiwal P. Depression, anxiety and stress among the general population in the time of COVID-19 lockdown: A cross-sectional study protocol. *Int J Res Pharm Sci.* 2020;11(Special Issue 1):360-364. doi:10.26452/ijrps.v11iSPL1.2726
- [20] White A. Men and COVID-19: the aftermath. *Postgrad Med.* 2020;132(sup4):18-27. doi:10.1080/00325481.2020.1823760
- [21] Hasford F, Ige TA, Trauernicht C. Safety measures in selected radiotherapy centres within Africa in the face of Covid-19. *Health Technol (Berl).* 2020;10(6):1391-1396. doi:10.1007/s12553-020-00472-z
- [22] Gagneux-Brunon A, Pelissier C, Gagnaire J, et al. SARS-CoV-2 infection: advocacy for training and social distancing in healthcare settings. *J Hosp Infect.* 2020;106(3):610-612. doi:10.1016/j.jhin.2020.08.001
- [23] Shoaib M, Abdullah F. Risk Reduction of COVID-19 Pandemic in Pakistan. *Soc Work Public Health.* 2020;35(7):557-568. doi:10.1080/19371918.2020.1806172
- [24] Elsamadony M, Fujii M, Miura T, Watanabe T. Possible transmission of viruses from contaminated human feces and sewage: Implications for SARS-CoV-2. *Sci Total Environ.* 2021;755. doi:10.1016/j.scitotenv.2020.142575
- [25] Knowles KA, Olatunji BO. Anxiety and safety behavior usage during the COVID-19 pandemic: The prospective role of contamination fear. *J Anxiety Disord.* 2021;77. doi:10.1016/j.janxdis.2020.102323
- [26] MacIntyre CR, Dung TC, Chughtai AA, Seale H, Rahman B. Contamination and washing of cloth masks and risk of infection among hospital health workers in Vietnam: a post hoc analysis of a randomised controlled trial. *BMJ Open.* 2020;10(9):e042045. doi:10.1136/bmjopen-2020-042045
- [27] McKay D, Minaya C, Storch EA. Conducting exposure and response prevention treatment for contamination fears during COVID-19: The behavioral immune system impact on clinician approaches to treatment. *J Anxiety Disord.* 2020;74. doi:10.1016/j.janxdis.2020.102270

- [28] De Vitis R, Passiatore M, Perna A, Proietti L, Taccardo G. COVID-19 contagion and contamination through hands of trauma patients: what risks and what precautions? *J Hosp Infect.* 2020;105(2):354-355. doi:10.1016/j.jhin.2020.03.037
- [29] Newby JM, O'Moore K, Tang S, Christensen H, Faasse K. Acute mental health responses during the COVID-19 pandemic in Australia. *PLoS One.* 2020;15(7 July). doi:10.1371/journal.pone.0236562
- [30] Eslami H, Jalili M. The role of environmental factors to transmission of SARS-CoV-2 (COVID-19). *AMB Express.* 2020;10(1). doi:10.1186/s13568-020-01028-0
- [31] Bazaid AS, Aldarhami A, Binsaleh NK, Sherwani S, Althomali OW. Knowledge and practice of personal protective measures during the COVID-19 pandemic: A cross-sectional study in Saudi Arabia. *PLoS One.* 2020;15(12 December). doi:10.1371/journal.pone.0243695
- [32] Meda M, Gentry V, Reidy P, Garner D. Unintended consequences of long-sleeved gowns in a critical care setting during the COVID-19 pandemic. *J Hosp Infect.* 2020;106(3):605-609. doi:10.1016/j.jhin.2020.07.036
- [33] Falahi S, Kenarkoohi A. Transmission routes for SARS-CoV-2 infection: review of evidence. *New Microbes New Infect.* 2020;38. doi:10.1016/j.nmni.2020.100778
- [34] Alahdal H, Basingab F, Alotaibi R. An analytical study on the awareness, attitude and practice during the COVID-19 pandemic in Riyadh, Saudi Arabia. *J Infect Public Health.* 2020;13(10):1446-1452. doi:10.1016/j.jiph.2020.06.015
- [35] Cohen R, Delacourt C, Gras-Le Guen C, Launay E. COVID-19 and schools. Guidelines of the French Pediatric Society. *Arch Pediatr.* 2020;27(7):388-392. doi:10.1016/j.arcped.2020.09.001
- [36] Williams JM, Randle H, Marlin D. COVID-19: Impact on United Kingdom horse owners. *Animals.* 2020;10(10):1-19. doi:10.3390/ani10101862
- [37] Di Maio P, Iocca O, Cavallero A, Giudice M. Performing the nasopharyngeal and oropharyngeal swab for 2019-novel coronavirus (SARS-CoV-2) safely: How to dress, undress, and technical notes. *Head Neck.* 2020;42(7):1548-1551. doi:10.1002/hed.26230
- [38] Magro F, Abreu C, Rahier J-F. The daily impact of COVID-19 in gastroenterology. *United Eur Gastroenterol J.* 2020;8(5):520-527. doi:10.1177/2050640620920157
- [39] Kumar A, Somani A. Dealing with Corona virus anxiety and OCD. *Asian J Psychiatr.* 2020;51. doi:10.1016/j.ajp.2020.102053
- [40] Khasawneh AI, Humeidan AA, Alsulaiman JW, et al. Medical Students and COVID-

19: Knowledge, Attitudes, and Precautionary Measures. A Descriptive Study From Jordan. *Front Public Heal.* 2020;8. doi:10.3389/fpubh.2020.00253

- [41] Jing JLJ, Yi TP, Bose RJC, McCarthy JR, Tharmalingam N, Madheswaran T. Hand sanitizers: A review on formulation aspects, adverse effects, and regulations. *Int J Environ Res Public Health.* 2020;17(9). doi:10.3390/ijerph17093326