

LETTER TO EDITOR

Importance of Face Masks during COVID-19

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Corona virus disease also known as COVID-19 is a respiratory infection that is caused by the virus SARS-CoV-2, that spreads among the people by respiratory droplets usually produced by sneeze and cough, and by touching an object or surface used by an infected person. As COVID-19 pandemic is increasing, the best way to limit the outbreak is the use of face masks^{1,2} which helps in preventing transmission of the virus from a person to another by creating a barrier between the oral cavity and the nose of the wearer with the potential contaminants in the surroundings.³

WHO has also provided comprehensive guidelines on using facemasks at home, public places and clinical setups.⁴ Hence, several countries including Pakistan have already included face masks in their COVID-19 control plans. As a result of the unexpectedly high demand for face masks, it has been very difficult for low-income countries to provide N95 and surgical masks. Therefore, people have started using cloth masks, while surgical masks are being used by healthcare workers. The re-use of surgical masks is being seen frequently in Pakistan.

According to a previous study, N95 and Surgical Masks, both were successful in the prevention of the spread of influenza. Surgical masks are basically used in protecting an individual from contagious droplets in clinical setups. Although, it was not found to be useful in stopping the spread of other such diseases, for example MERS/SARS.⁵ These surgical masks do not fit well on the face around the edges, therefore small air-borne microbes and its particles can escape through

these edges. N95 masks are more effective than the surgical mask because these fit tightly on the face and can filter out both small and large particles, therefore, prevent the individual from inhaling smaller, airborne infectious particles.⁶ There is insufficient data to prove that using a surgical mask prevents everyone from COVID-19. Some studies also report that both cloth and surgical masks were unsuccessful in the prevention of the spread of SARS-CoV-2 with the respiratory droplets of COVID-19 patients to the surroundings and the external surface of the mask.

Moreover, the appropriate use of these masks is important as inappropriate use may eventually raise the transmission rate of this virus. Evidence shows that even the health care workers do not have enough awareness and their practices of wearing masks are inappropriate.⁷ Some studies suggest that cloth masks may help in the reduction of transmission of larger respiratory droplets. Their effectiveness may depend on the fabric used as well as how well they fit on the face of the wearer, but some studies have already reported about the effectiveness of cloth masks for SARS CoV-2.^{8,9}

Public awareness is important regarding the appropriate use of face masks and future studies are also needed for investigating the effectiveness of face masks in filtering respiratory viruses and preventing viral release from an infected person.

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References

1. Luan PT, Ching CT. A reusable mask for coronavirus disease 2019 (COVID-19). *Arch Med Res.* 2020. 51(5):455-457. doi: 10.1016/j.arcmed.2020.04.001.
2. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet.* 2020 ;395(10229):1054-1062. doi: 10.1016/S0140-6736(20)30566-3.

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3. Ho HS. Use of face masks in a primary care outpatient setting in Hong Kong: knowledge, attitudes and practices. *Public Health*. 2012;126(12):1001-6.doi: 10.1016/j.puhe.2012.09.010.
4. Advice on the use of masks in the community, during home care, and in health care settings in the context of COVID-19: interim guidance. World Health Organization; 2020.
5. Quan FS, Rubino I, Lee SH, Koch B, Choi HJ. Universal and reusable virus deactivation system for respiratory protection. *Scientific Reports*. 2017;7(1):1-0.article number: 39956 (2017).
6. Desaei AN, Mehrotra Preeti MD. Medical masks are a tool that can be used to prevent the spread of respiratory infection. *J Am Med Assoc*. 2020;323(15):1517-1518. doi:10.1001/jama.2020.2331
7. Zafar A, Aslam N, Nasir N, Meraj R, Mehraj V. Knowledge, attitudes and practices of health care workers regarding needle stick injuries at a tertiary care hospital in Pakistan. *J Pak Med Assoc*.2008;58(2):57-60.
8. Chughtai AA, Seale H, MacIntyre CR. Use of cloth masks in the practice of infection control—evidence and policy gaps. *Int J Infect Control*. 2013;9(3).1-12. DOI:<https://doi.org/10.3396/ijic.v9i3.11366>
9. Davies A, Thompson KA, Giri K, Kafatos G, Walker J, Bennett A. Testing the efficacy of homemade masks: would they protect in an influenza pandemic? *Disaster Med Pub Health Prep*. 2013 Aug;7(4):413-8.doi: 10.1017/dmp.2013.43.