

CORONA VIRUS DISEASE-19: THE MYTHS AND FACTS

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ABSTRACT

A novel quote says “*Then you will know the truth, and the truth will set you free*”. Human history is facing a very strange time struggling an invisible foe; the novel coronavirus disease -19 (COVID-19). Initially observed in the Wuhan, China and now swiftly spreading across the world. Due to this pandemic world facing many new deaths every day, even today the rate of the death increases across countries is due to panic and following the myths. With every global crisis comes an onslaught of conjecture and conspiracy theories, and coronavirus is no different. Hence it is important to know the truth and make the human minds free. Hence the review describes about the myths and real facts of COVID-19.

KEY WORDS: COVID-19, Facts, Myths, SARS-CoV-2.

INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus called SARS-CoV-2. According to the World Health Organization (WHO), on 31st December 2019 the WHO China Country Office was notified about the cases of pneumonia with an unknown etiology in Wuhan City (1). The disease has been spreading worldwide affecting 199 countries. It is an infectious respiratory illness with mild to moderate symptoms. Common symptoms include fever, cough, sneezing, and shortness of breath. In some cases, infected persons will be asymptomatic. To prevent from COVID-19, WHO and Centers for Disease Control and Prevention (CDC) insist us to follow certain precautions. There is a lot of information coming out each day about the coronavirus, but amid the pandemic, there are also a lot of myths. Following are the 21 myths that are spreading among society and social media.

MYTHS AND FACTS OF COVID-19

1. MYTH: *Corona virus is manmade* - It is a myth that started to spread among social media stating that the coronavirus did not originate naturally instead it was developed in the laboratory of China and United States (US) to use it as a bioweapon.

FACT: It was an unverified rumor that does not have any reliable evidence. Scientists of both China and US also denied the above stated theories. The researchers have identified that the virus has originated from bats and it has been transmitted to humans, currently it is spreading from person to person. Though the facts are clear the spread of myth are continued.

2. MYTH: *Home Remedies can prevent coronavirus* - Home remedies such as eating garlic, drinking water every 15 minutes, taking Vitamin C, applying sesame oil on your body, using essential oils, colloidal silver and steroids helps people to prevent from corona virus.

FACT: Though the garlic has some antimicrobial properties, it will not prevent from coronavirus. Vitamin C can help only to improve immunity; silver colloidal can lead to kidney damage and seizures. There is no evidence that these home remedies can protect people from new coronavirus.

3. MYTH: *Using disinfectant on skin surface* - The chemical substances such as disinfectants, bleach, chlorine, 75% ethanol, per acetic acid and chloroform may kill virus on surfaces.

FACT: But if the virus is already in your body, putting those substances on your skin or under your nose won't kill it and can be dangerous. Do not ingest chemical disinfectants either.

4. MYTH: *Face masks can protect you from the virus* - Wearing the surgical mask and N95 mask by the common people can protect from newly spreading coronavirus.

FACT: The wrong usage of the mask by the general public can increase the risk of infection. A healthy people wearing a N95 mask is not advised because they need a training to properly fit N95 respirators and also need to know about the equipment for damage after use as they may allow tiny infected droplets to get into the nose, mouth or eyes. Also, people with the virus on their hands who touch their face under a mask might become infected. According to the CDC, the other people who really need to wear masks are health care workers and people caring for someone infected with the virus in close settings. Person who wear mask also must know how to use it and dispose it properly.

5. MYTH: *Heat and cold can kill the virus* - Coronavirus cannot be transmitted in areas with hot, humid, snow and cold weather.

FACT: There is no evidence that the weather can kill the new virus. WHO says that, the COVID-19 can be transmitted in all areas, including areas with hot and humid climates since the normal body temperature of human is 36.5°C to 37°C.

6. MYTH: *Hand dryers kill coronavirus* - Hand dryers are effective in killing the new coronavirus.

FACT: According to WHO the hand dryers are not effective in killing the virus, the hands should be cleaned using an alcohol rub or wash with soap and water. Hand drier are used for drying the hand after washing.

7. MYTH: *An ultraviolet disinfection lamp kills the new coronavirus* - Ultraviolet rays are effective in killing the COVID-19

FACT: The ultraviolet disinfection lamp cannot kill the new virus as this may irritate the skin or any part that are exposed to the UV radiation.

8. MYTH: *The virus can be transmitted through mail or parcel* – Receiving a package or letter from the infected area is unsafe.

FACT: The people are not at risk who are receiving parcel from such places, since there is no evidence to support transmission of COVID-19 associated with imported goods as the packaging are shipped over a period of days or weeks at ambient temperature.

9. MYTH: *Kids can't catch the Coronavirus* - The coronavirus cannot affect the children under the age of 10.

FACT: The infection can affect to anyone of any age, mostly to the people with the preexisting medical condition and those with weak immunity are more vulnerable to serious infection. The CDC mentions that there are fewer cases in children when compared with adult. There are less than 1% of children affected by the COVID-19.

10. MYTH: *People who get the coronavirus will die* - The coronavirus (COVID-19) can kill the people those who are infected.

FACT: The above-mentioned statement is not true. COVID-19 is only fatal for around 2% of people. People who are affected by coronavirus can get mild to moderate upper respiratory illness like common cold. The WHO reported around 80% of people will experience a mild form of disease.

11. MYTH: *A vaccine to cure COVID-19 is available* – Vaccines against pneumonia can protect the people against new corona virus.

FACT: Currently there is no vaccine is available for this virus. Since it is a new form of virus, it needs its own vaccine. Pneumonia vaccines such as, pneumococcal vaccine and Haemophilus influenza type B (Hib) does not provide protection against new coronavirus. Developing a vaccine which is safe and protective for humans will take months. Researchers are still trying to create a new vaccine against COVID-19 with the support of WHO.

12. MYTH: *Antibiotics kill coronavirus* – Antibiotics are effective in preventing and treating the new coronavirus.

FACT: Antibiotics are meant for bacteria; no antibiotics can kill virus. The hospitalized patients with COVID-19 receive antibiotics because they have the possibilities of bacterial co-infection.

13. MYTH: *Hot water bath can prevent coronavirus* – Taking hot water bath frequently will prevent the infection of COVID-19.

FACT: Hot water bath will not prevent people from catching COVID-19. The normal body temperature of human remains around 36.5°C to 37°C, irrespective of bath or shower. Taking bath in extremely hot water can be harmful.

14. MYTH: *Mosquito bite can transmit the coronavirus* – The new coronavirus can be transmitted from person-to-person through mosquito bite.

FACT: Till date there is no evidence providing that mosquito bite transmit this virus. The new coronavirus is a respiratory virus which spreads primarily through the droplets that is generated from an infected person.

15. MYTH: *Thermal scanners can diagnose coronavirus* – Thermal scanners are used to detect the people those who are infected by COVID-19.

FACT: Thermal scanners can detect the people those who have fever and other conditions such as seasonal flu. However, they cannot detect people who are infected by COVID-19 but not yet sick with fever, because it takes about 2 to 14 days before infected people become sick and develop a fever.

16. MYTH: *You're way less likely to get COVID-19 than the flu*

FACT: Not necessarily. To estimate how easily a virus spreads, scientists calculate its "basic reproduction number," or R_0 . R_0 predicts the number of people who can catch a given bug from a single infected person, Live Science previously reported. Currently, the R_0 for SARS-CoV-2, the virus that causes the disease COVID-19, is estimated at about 2.2, meaning a single infected person will infect about 2.2 others, on average. By comparison, the flu has an R_0 of 1.3.

17. MYTH: *Coronavirus is mutated from common cold* - The symptoms of coronavirus are similar, so it has been mutated from common cold.

FACT: It is not a mutated virus of common cold. SARS-CoV-2 does share similarities with other coronaviruses, four of which can cause the common cold. However, the four cold coronaviruses - named 229E, NL63, OC43 and HKU1 all utilize humans as their primary hosts. SARS-CoV-2 originated in bats share about 90% of its genetic material with coronaviruses that infect bats, and later it was transmitted to humans. Evidence suggests that the virus passed through an intermediate animal before infecting humans.

18. MYTH: *Pets can spread the new coronavirus* - SARS-CoV-2 is a zoonotic virus, they spread from animals to humans. So, pet animals are one of the causes to spread coronavirus to humans.

FACTS: The fact is it's the other way around; dogs may be vulnerable to get the virus from people. A dog in China had a "low-level infection" from its owner, who has a confirmed case of COVID-19. No evidence suggests that the animal could infect humans. The CDC recommends that people with COVID-19 should have someone else to take care of their pets. According to CDC, people should always wash their hands after snuggling with animals, as companion pets can spread other diseases to people.

19. MYTH: *Holding breath for 10 seconds* - If you can hold your breath for 10 seconds, you are healthy.

FACT: According to experts, the 10 seconds test being shared online would not be reliable way to determine whether someone has the virus. This approach may be helpful in identifying persons with more serious lung disease. But it will not help to identify COVID-19.

20. MYTH: *Rinsing nose with saline* - Regularly rinsing your nose with saline help prevent infection with new coronavirus

FACT: As per WHO there's no evidence that regularly rinsing the nose with saline will protect people from infection with coronavirus.

21. MYTH: *Breast feeding* - Mothers who are infected with COVID-19 should not breastfeed their baby.

FACT: As per WHO a woman with COVID 19 should be supported to breastfeed safely. The baby who has already been exposed to coronavirus by the mother will benefit most from direct, continued breastfeeding. This is because breast milk provides protection against many illnesses and strengthens the baby's immune system.

CONCLUSION

Globally the spread of disease is increasing rapidly, alongside the myths and misconceptions are also circulating all over the world. It is important to be aware of all the appropriate information. The truth will definitely set you free.

CONFLICT OF INTEREST: Nil

REFERENCES

1. World Health Organization (WHO). Coronavirus. Geneva: WHO; 2020 [Accessed 21 Jan 2020]. Available from: <https://www.who.int/health-topics/coronavirus>.
2. Medical news today, <https://www.medicalnewstoday.com/articles/coronavirus-myths-explored>
3. World health organization (WHO): # COVID19 # Coronavirus, 9 March 2020.

