

Research Article

Reducing the spread of the Coronavirus (COVID-19) In light of the Islamic Law and scientific approach: Protection, and prevention

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ABSTRACT

A virus is an ultramicroscopic (20-300 nanometers in diameter) metabolically inert, infectious agent that replicates only within the cells of living hosts. Coronavirus disease 2019 (COVID-19) is a viral infectious disease caused by SARS-CoV-2 and is announced by World Health Organization (WHO) as a pandemic. As of 23 August 2020, 23,407,334 infected people and 810,242 deaths were reported worldwide. COVID-19 has affected our daily lives and influences all aspects of life, including economic, social, health, etc. On the healthcare level, the world is faced with many challenges, including diagnosis, quarantine, and treatment of suspected cases, overloaded doctors and healthcare professionals and the requirement of a high level of protection. This research focused on preventive measures - preventive medicine - to combat coronavirus according to Islamic law's and modern medicine's perspective. Sharia focuses on preserving diseases to achieve its objectives thereby, so it has legislated some of the rulings that achieve this purpose, so it based its provisions on bringing interests and warding off evil. This research has been divided into two requirements; the first requirement is that the researcher talked about preventive strategies, one of the most important branches of medicine because it precedes disease before it occurs to be rectified with awareness and guidance. The second requirement: supporting scientific research to make vaccines and medicines is the most important findings of the researcher. Besides the review intent to explaining the extent of compatibility and difference between practical applications in Islamic jurisprudence and modern medicine, Explaining the importance of treatment from diseases and epidemics and the necessity of supporting scientific research to find medicines and vaccines(not only preventive strategies), and A statement of the importance and necessity of adhering to the instructions and instructions issued by the competent medical authorities and institutions with expertise and competence to prevent transmission of infection by prevention, treatment and taking vaccinations.

Key words: COVID-19, Scientific Approach, Islamic Law, Protection, Prevention

INTRODUCTION

As Protection measures and to reduce or prevent the spread of COVID-19, the WHO urged people to apply several protection procedures and health hygiene measures, including; clean their hands often. Use soap and water, or an alcohol-based hand rub; keep a safe distance from anyone who is coughing or sneezing, don't touch your eyes, nose or mouth. Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze, stay home if you feel unwell, If you have a fever, cough and difficulty breathing, seek medical attention; masks can help prevent the spread of the virus from the person wearing the mask to others. Wear Masks, and should be combined with physical distancing and hand hygiene. In addition, always follow the directions of your local health authority. Looking at history, the world faced and still faces crises such as pandemics, and the way out is always through science and technology. Advanced nations seek to confront risks through scientific means and studies. The new coronavirus caused panic among the population of the Earth. COVID-19 has left its effects in all aspects of life;

closed borders, global economies have slowed down, and schools closed. Students in their homes study, employees in their homes work and so on. The spread of such pandemic as COVID-19 is a challenge for human societies, and it threatens social relationships, cause a change in health systems, social, educational, family, and economic. Although some research has been carried out on the management of pandemic crises, little work has been done on the Islamic approach to pandemic crisis management (Al Eid *et al.*, 2020).

The Islamic nations went through many crises and disasters. Prophet Muhammed advised his companions to value their lives as of the utmost importance over death in his numerous sayings (hadiths), urging people to stay away from places where there were epidemics. Prophet Mohammad said, "When you hear that [a plague] is in a land, do not go to it and if it occurs in a land that you are already in, then do not leave it, fleeing from it," We are now several months into the coronavirus pandemic, which was first detected in Wuhan, China. Much of the Muslim world is still struggling to come to terms with the scope of its impact. The needs of human

life have been enshrined as fundamental rights or human rights, a legal concept that every individual has inherent rights because he or she is a human being. The Islamic term *maqasid sharia* refers to the objectives of sharia as a legal concept which asserts that every Islamic law is for a certain purpose as stated in the Quran and the hadiths.

Eradication and the teaching methods of Islamic law when Allah says: "And spend in the way of Allah and do not throw [yourselves] with your [own] hands into destruction" Surah Al-Baqarah, Verse 195. And Allah said in another verse: "And do not kill yourselves [or one another]" Surah An-Nisa verse 29. It is forbidden to harm others so that the individual interacts with people while knowing or overlooks their beliefs that it can cause them to harm by spreading the infection because the Islamic law came only to preserve rights. The right of the individual to life is guaranteed and to live a safe life away from risks, and it is forbidden to violate this right because life preservation is one of the purposes of Islamic law.

Allah said: "And do not kill the soul which Allah has forbidden, except by right." Surah Al-Isra verse 33. Also said in another verse: "And do not kill the soul which Allah has forbidden [to be killed] except by [legal] right." Surah Al-An'am verse 151. And several other verses in the Holy Qur'an also indicate the same thing, and it is also well known that one of the methods of the Holy Qur'an is repetition for confirmation. A man is considered to be a killer through causing it, because the soul is inviolable. The duty is to protect it from any harm that may be inflicted on it, whether on himself or others, so he must abide by that to keep the harm away, and there is no minimum right to violate the right of others to their right to a healthy life by spreading the infection between people and inflicting them to the disease. And the second part of the rule: "Do no foul", it is forbidden to remove the harm by harm similar to it. But instead, "harm is eliminated," meaning that harm must be eliminated by preventing people from coming in contact with other people because the damage must be removed in any way the ruler considers proper and imposing a penalty on the offender to protect others and preserve their right and remove the damage as much as possible. We must also stand together for the community's interest.

People's right is to live equals regardless of their religion, beliefs or gender, whether old or young. The older adult has the right to live as much as the young, and no one has the right to choose who has more right to live, so their rights are equal, and the view of the Islamic law of souls is only one and does not vary. Allah said: "We have honoured the sons of Adam; provided them with transport on land and sea; given them for sustenance things good and pure; and conferred on them special favours, above a great part of our creation." Surah Al-Isra verse 70. By honouring the sons of Adam, Allah meant that he put them above all creatures and all other creatures are there for their benefit. And in the freedom of religion and belief, Allah said: "There shall be no compulsion in religion ..." Surah Al-Baqara verse 256. Allah also said: "Allah loves those who act justly." Surah Al-Mumtahanah verse 8. Allah

loves those who are fair, who do justice to people and only give what's right, those who do right to the righteous and do well to those who did well to them. The difference in religion does not cause a lack of rights and inequality in it. A Muslim and a non-Muslim have the same right to live independently, dispose of, and prosecute. Also, Islamic law only came to preserve the interest and prevent mischiefs. And suppose the interest ever contradicted with the mischiefs. In that case, it's a priority to prevent the mischiefs first than bringing interests, according to jurisprudence rule: "preventing mischiefs is better than bringing benefits".

One of the characteristics of Islamic Sharia is stability and righteousness for every time and place. Among its objectives is to protect the soul, fend off evil and remove harm; moreover, everything that achieves these goals is Islamic law. Since Corona disease harms the soul and others, and by the loss of the soul that God has commanded to protect, ward off corruption and remove harm from it, the preventive measures and teachings that the Islamic Sharia came in a must that be taken to preserve its general purposes and rules and the necessity of adhering to the principles and rules that it called for, and the necessity of searching for the medicine and treatment.

It was necessary to indicate that the Obligatory was brought by Islamic law were daily habits, even without disease in terms of self-preservation and public health, which are considered among the purposes of Islamic law and its general rules, so it was quoted in (A Message in the Hesbah) by Ibn Abdoun, the sixteenth century, The Orientalist, Provencal, in the Scientific Institute The French Antiquities Organization, Cairo 1955 C.E. What it says: "The mask was a must for the entry of millers and bakers. Ibn Abidin said: "... No one of them does not knead unless he is masked, lest anything fly out of his mouth if he sneezes or speaks, and that a white band is pulled on his forehead so that he does not sweat and something drips onto the dough".

PREVENTION

Pandemics have a long history of existence. Outbreaks like Plague, cholera and influenza have triggered immense deception to the survival of human beings and animals. The devastation of the pandemic Corona Virus (COVID-19) has been seen globally from December 2019 onwards. People with the epidemic have been hospitalised with a wide range of signs such as headache, and acute fever, sore throat, shortness of breath were the typical symptoms (Sibli 2020). Justinian's Plague was the first known pandemic in human history. This took place just three decades before the arrival of Prophet Mohammad (PBUH) during the Byzantium Empire. Subsequently, another pandemic appeared.

In Persia around 627-28, during which Prophet Muhammad (PBUH) resided in Madinah. In 639 A.D, Syria was hit by a plague outbreak which was controlled by the second Caliphate of Muslims, Omar al-Khattab (Sibli 2020). There are several obstacle measures and guidelines to follow to help protect

yourself from reducing and transmitting SARS-CoV-2 (Al Eid and Arnout 2020): washing your hands frequently and carefully, Using warm water and soap, and rubbing your hands. Work the lather to your wrists, between your fingers, and under your fingernails. You can also use a bar of antibacterial and antiviral soap. Use hand sanitiser when you cannot wash your hands properly. Rewash your hands several times a day, especially after touching anything, including your phone or laptop. Researchers reported that the Hygiene stated that the coronavirus has spread in many areas of the world and quickly affects others. Hand hygiene is a topic of importance for the International Health Organization and other health's experts. They encourage people to wash their hands safely many times. Each period soap should be washed for at least 20 seconds; otherwise, the germs would not be removed from the hands of others. However, the cleanliness of people's hands is of considerable value to Islam. Each time the washing of the hands continues, and it hits the elbows during ablution (Wadu). Prophet Muhammad (PBUH) also suggested that the hands be washed thoroughly before and during all meals and after going to the loo (Al Eid and Arnout 2020).

Prevent touching your face, and the virus can live on some surfaces for up to 72 hours. You can get the virus on your hands if you touch a surface; prevent touching any part of your face or head, including your mouth, nose, and eyes. Moreover, avoid biting your fingernails. Avoid shaking hands and hugging people — for now. Similarly, prevent touching other people. Skin-to-skin contact can transmit SARS-CoV-2 from one person to another. Do not share your items. It's also important not to share food utensils and straws. Teach children to recognise their reusable cup, straw, and other dishes for their use only.

Cover your mouth and nose when you cough and sneeze with your elbow or with a tissue. SARS-CoV-2 can be carried by air droplets to other people when you cough, sneeze or talk. It can also land on hard surfaces and stay there for up to 3 days. Wash your hands carefully after you sneeze or cough, regardless. Clean and disinfect surface with alcohol-based disinfectants to clean hard surfaces in your home. Take physical (social) distancing seriously; Physical (social) distancing also means staying home and working remotely when possible. If you must go out only for necessities, keep a distance of 6 feet (2 m) from other people. You can transmit the virus by speaking to someone in close contact with you. Do not gather in groups; being in a group or gathering makes it more likely that you'll be in close contact with someone. This includes avoiding all religious places of worship, as you may have to sit or stand too close to another congregant. It also includes not gathering at parks or beaches. Avoid eating or drinking in public places. Now is not the time to go out to eat. This means avoiding restaurants, coffee shops, and other eateries is very important and influenced.

The virus might be transmitted through food, utensils, dishes, and cups. It may also be temporarily airborne from other people in the venue. You can still get delivery or

takeaway food. Choose foods that are thoroughly cooked and can be reheated. This means it may be best to avoid cold foods from restaurants and food from buffets and open salad bars. Wash fresh groceries; wash all produce under running water before eating or preparing. The Centers for Disease Control and Prevention (CDC) recommends trusted Source that almost everyone wears a cloth face mask in public settings where physical distancing may be difficult, such as grocery stores. When used correctly, these masks can help prevent asymptomatic or undiagnosed people from transmitting SARS-CoV-2 when they breathe, talk, sneeze, or cough. This, in turn, slows the transmission of the virus. Some pointers to keep in mind: Wearing a mask alone will not prevent you from getting a SARS-CoV-2 infection. Careful hand washing and physical distancing must also be followed.

Cloth masks aren't as effective as other types of masks, such as surgical masks or N95 respirators. However, these other masks should be reserved for healthcare workers and first responders. Wash your hands before you put on your mask. Wash your mask after each use. You can transfer the virus from your hands to the mask. If you're wearing a mask, avoid touching the front of it. You can also transfer the virus from the mask to your hands. Self-quarantine if you get sick; call your doctor if you have any symptoms. Stay home until you recover. Avoid sitting, sleeping, or eating with your loved ones even if you live in the same home. Wear a mask and wash your hands as much as possible. If you need urgent medical care, wear a mask and let them know you may have COVID-19. Because avoiding mischiefs is more critical than bringing benefits, and it can affect an individual or a group of people, if it affects a group, it should also be avoided, if there is also an interest that affects the individual or the group of people as a result of this behaviour then in case of discrepancy the interest of people is more important than the individual for the jurisprudence rule: "bears the specific mischief to keep the general mischief away".

The general mischief is the one that affects a group of people, and the specific affects an individual or a few people in the community. Therefore this has been chosen instead of the general mischief. And if this prevention caused specific mischiefs like closing shops and institutions, or determining the prices of food and other supplies that people needed when traders agreed to increase their normal prices, or banning exporting medications or any other supplements if it causes the increase of prices in the country or lacking it. But if there isn't any damage, then it won't be contraband or banned, and that's all for the benefit of the group. Individual interests are not a priority over the expense of the public and groups. There is a general responsibility and a special responsibility for any person towards himself, towards others, and society as a whole. And the ruler's behaviour also depends on the interest of the parish, so he/she does not rule in contradiction to the public interest and should prevent mischief from society as a whole, so he/she does not take into account the interests of specific groups in society at the expense of other groups and

does not make the economic aspect a priority over saving lives and souls, because self-preservation is greater for Allah than preserving other necessities, according to the jurisprudence rule: "The interest of the community drives the actions of an Imam (leader)." Then it must be indicated that the Islamic Law imposed certain measures that a Muslim person takes to protect the person from certain diseases or limit them (Sibli 2020). Such as purity like ablution in prayer, the five daily prayers, and everyone knows how to perform ablution by washing the face and hands, wiping the head, washing the feet and as a matter of desirability washing them three times, continuing ablution, by washing the nose, brushing teeth, and too much rinsing, it is also desirable to renew the ablution for each prayer, as it is known that the prayer is obligatory Five times a day. Hence, the Muslim must be clean, and it is obligatory to perform ablution at every prayer due to the smallest action, such as urinating and defecating. Still, an ablution is not sufficient due to the largest action, such as intercourse, but it is obligatory to wash up, and it has a specific method that must be done by passing water all over the body. It also imposed etiquette behaviours such as not sneezing in the face of others and using your right hand to eat or drink, and you're left for the rest of your needs, as well as clipping nails, cutting the pubic hair. Many other things called for by Islamic law. The person has thus achieved what the Islamic law aimed for by maintaining personal Hygiene. The Islamic Law Also took care of the physical and psychological health of the person looking at the movements, which are done in the prayer from bowing and prostrating (obligatory) and prolonging it (desirable). and five times a day, the person's relationship with Allah shows how the Islamic law takes care of the individual's mental health and its positive effects on the psychological mind. It also took care of physical health whether by exercising or by food and urged the individual to exercise, following the Sunnah of the Messenger of Allah, may Allah bless him and grant him peace, and to look at the quality and quantity of the food, many hadiths are indicating this, including the guidance of the Prophet, peace and blessings be upon him, with the amount of food and the prohibition of eating a lot. Many Hadiths were reported confirming this. Also, eating healthy food that boosts your immune system; Allah said: "(16:68) And your Lord inspired to the bee, "Take for yourself among the mountains, houses, and among the trees and [in] that which they construct.(16:69) Then eat from all the fruits and follow the ways of your Lord laid down [for you]." There emerges from their bellies a drink, varying in colours, in which there is healing for people. Indeed, in that is a sign for a people who give thought." Surah Al Nahl verses 68,69. Many of the noble hadiths came to encourage taking healthy food. And it is obligatory to stay away from eating and drinking what is forbidden, such as wine, pork, etc., as mentioned in verse, because of its harmfulness to the body when it's eaten. Allah said: "intoxicants and games of chance, and altars set up for false deities and divining arrows are only abominations, some of satan's handiworks, therefore shun each one (of these abominations) so that you may attain your

goal." Surah Al Maeda verse 90. "He has forbidden to you only carrion, and blood, and the flesh of swine, and that over which any name other than God's has been invoked; but if one is driven by necessity - neither coveting it nor exceeding his immediate need -no sin shall be upon him: for, behold, God is much-forgiving, a dispenser of grace". Surah Al Baqara verse 173. "You are forbidden (to consume) the dead, blood and the flesh of swine; also flesh dedicated to any other than Allah, the flesh of strangled (animals) and those beaten, that which is killed by falling, gored to death, mangled by beasts of prey unless you find it (still alive) and slaughter it; also of animals sacrificed on stones (to idols)." Surah Al Maeda verse 5. The soul is protected as this is a gift from Allah which must be preserved, and it is forbidden to cause harm to it, and you are accountable for it. Allah's Messenger, peace be upon him, said: "Your body has a right over you". (Ahmad bin Hanbal, first print, 2001).

The necessity to avoid anxiety and stress because of its adverse effects on health, Allah Said: "And in Allah (Alone) let believers put their trust." Surah Al Omran verse 160. "Allah – there is no deity except Him. And upon Allah let the believers rely on." Surah Al Tagabun verse 13. And it was repeated in the Holy Quran in more than one place, and repetition is a method of the Qur'an that benefits the affirmation. Allah Said: "and never give up hope of Allah's Mercy." Surah Yusuf verse 87. Another measurement is quarantine; Allah's Messenger, peace be upon him, said: "If you get wind of the outbreak of plague in a land, do not enter it; and if it breaks out in a land in which you are, do not leave it." [Al-Bukhari and Muslim]. He urged for self-quarantine and said that Allah would reward the one who dies while abiding by his order, a reward similar to a martyr. The Prophet said: "Plague was a punishment which Allah used to send on whom He wished, but Allah made it a blessing for the believers. None (among the believers) remains patient in a land in which Plague has broken out and considers that nothing will befall him except what Allah has ordained for him, but that Allah will grant him a reward similar to that of a martyr." Sahih al-Bukhari.

This is a responsibility that all individuals must follow and commit to it. There is a special responsibility and a general responsibility. Every person must bear all his actions towards himself first and towards his society as a whole, and it starts by bearing and preserving the responsibility. This responsibility increases when it causes harm to others and ends when judgment day comes. The Prophet, peace be upon him, said, "The example of the person abiding by Allah's order and restrictions in comparison to those who violate them is like the example of those persons who drew lots for their seats in a boat. Some of them got seats in the upper part and the others in the lower. When the latter needed water, they had to go up to bring water (and that troubled the others), so they said, 'Let us make a hole in our share of the ship (and get water), saving those who are above us from troubling them. So, if the people in the upper part left the others to do what they had suggested, all the ship's people would be destroyed, but if they prevented

them, both parties would be safe. "Sahih al-Bukhari. This is a societal responsibility that every individual is accountable for. Today, we have to take on every oblivious who did not abide by the instructions; for everyone's survival. It is our responsibility, and we will all be accountable for it before Allah on the day of judgment. The Prophet, peace be upon him, said: "There would be turmoil, and the one who would sleep would be better than who would be awake, and the one who would be awake would be better than one who would stand, and one who would stand would be better than one who would run. So he who finds refuge or shelter should take that refuge or shelter." Muhammad bin Ismael al-Bukhari. We should also not forget the responsibility of donating money for the public's interest, such as paying Zakat and charity, especially in circumstances of pandemics, and this is considered a matter of social solidarity called for by Islam. Among the measures that we are obligated to follow to protect ourselves is: "Medication", and here I quote one of many hadiths on the obligation of Medication: "Seek treatment, O slaves of Allah! For Allah does not create any disease, but He also creates with it the cure, except for old age." Ahmad bin Mohammad bin Hanbal.

PROTECTION

"individuals need to use disinfectant (soap or alcohol-based at least 70%), cleaning floor with 1000ml of chlorine solution (e.g. "blech" containing sodium chloride take 40ml bleach and dilute in 1Lt of water)" (Pradhan *et al.* 2020). Harvard Medical School, Boston reported that acetaminophen, Ibuprofen, or naproxen reduces fever, ache and pains. For acetaminophen daily dose should not exceed 3,000 milligrams. Department of Health and Social Care, U.K. stated that Gelsemium 30c and Bryonia 30c are commonly used for flu-like symptoms and recommended for COVID19 (Pradhan *et al.* 2020).

Prophet Muhammad (PBUH) said that the shirt's sleeves should cover his face to stop hiccups whenever an individual has a hiccup. Moreover, Prophet stated no to breathe in the water bottle while drinking. This is because dirty air discharges during breathing contaminate the vessel, which is detrimental to health. The health officials confirmed that the virus had been spread in busy areas, suggesting that people not join crowded places. The individual affected by COVID19 disease may transmit to another person through contact. In this case, Muslims were stopped to attend the prayers in the Mosque in early March 2020. Given the conditions, Islamic academics and religious groups worldwide suggested that they stay and pray at home rather than head to the mosque. Since March 2020, only workers and a small number of guests had been permitted by Haramain Administrative Council to worship.

During Muhammad's time (PBUH), he ordered Muazzin (One who calls Muslims to prayer) to announce prayers in the home after heavy rain had stopped the Prophet from heading towards the mosque. In early March, when the coronavirus was rampant, Islamic laws were implemented in some Arab

countries. The message of the muazzin declared that pray in your residing places rather than coming to the Mosque. In Islam, it is permissible to perform the prayer at home under certain conditions. According to the teachings of Islamic Sharia, it is best not to go anywhere during the COVID19. There are possible chances to be infected by the virus. Moreover, high smell like onion garlic from the mouth was disliked by the Prophet (PBUH) in the mosque. Such smell will disturb the other devout in the mosque. Muslims would proceed with the general precautions as stated by health organisations following the traditional Islamic procedure: abolition (hand and face wash) at least five times a day, frequently praying, meditating, reciting religious texts, etc.

CONCLUSIONS

There is currently no effective available vaccine to prevent coronavirus disease 2019 (COVID-19). The best way to avoid/reduce illness is to prevent being exposed to this virus. The virus is thought to spread mainly from person to person. Between people who are in close contact with one another (within about 6 feet). Through respiratory droplets produced when an infected person coughs, sneezes or talks. These droplets can land in the mouths or noses of nearby or possibly inhaled into the lungs. Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms. While one of Islam's fundamental beliefs is that God (Allah) only determines what will happen in the future, the Corona Virus COVID19 is not the first one that infects millions of people. The coronavirus is linked with cleanliness. The numerous health care consultants highlight this. Indeed, Islam ordered Muslims to keep clean but still stated that Muslims should take part in the ongoing phase by helping others. Therefore, Muslims have no options to ignore or overlook cleanliness. Cleanliness is indeed of universal significance. It helps Muslims as well as non-Muslims to save from any infectious disease.

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The authors declare no competing interests.

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REFERENCES

- A Message in the Hesbah by Ibn Abdoun, the sixteenth century, The Orientalist, Provençal, in the Scientific Institute The French Antiquities Organization, Cairo 1955 C.E.
- Al Eid, N. A., Arnout, B. A., & Almoied, A. A. (2020). Leader's spiritual intelligence and religiousness: Skills, factors affecting, and their effects on performance (a qualitative study by grounded theory). *Journal of Public Affairs*, 21(1), e2129. <https://doi.org/10.1002/pa.2129>
- Al Eid, Nawal A. and Arnout, Boshra A. 2020. Crises and disaster management in the light of Islamic approach: COVID-19 Pandemic crises as a model (a qualitative study using the grounded theory). *Journal of Public Affairs*, 20(4), e2217 <https://doi.org/10.1002/pa.2217>
- Al-Bukhari, Muhammad bin Ismail Abu Abdullah Al-Bukhari Al-Jaafi, Al-Jameed Al-Musnad Al-Sahih, the collector, predicate, correct and brief on the matters of the Messenger of Allah, peace be upon him, and his Sunnah and his days = Sahih Al-Bukhari, part 7, p. 130, p. 131.
- Al-Bukhari, Muhammad bin Ismail bin Ibrahim bin al-Mughairah al-Bukhari, Abu Abdullah (died: 256 AH), the hadiths referred to in the great history book of Bukhari, part 1, p. 753, prepared by: Dr./Muhammad bin Abdul Karim bin Obaid Professor of Hadith and Sciences, Umm Al-Qura University. Publisher: Al-Rushd Library, Riyadh, Edition: First, 1420 AH - 1999 A.D.
- Al-Nisaburi, Abu Abdullah al-Hakim Muhammad bin Abdullah bin Muhammad bin Hamdawiyya bin Naem bin al-Hakam al-Dubbi al-Tahmani al-Nisaburi known as Ibn al-Baa'e (died: 405 AH), Al-Mustadrak Ali al-Saheeh, part 4, p. 135. Reviewer: Mustafa Abd Al-Qader Ata, publisher: Scientific Books House, Beirut Edition: First, 1411 AH - 1990 A.D.
- Al-Shaybani, Abu Abdullah Ahmad bin Muhammad bin Hanbal bin Hilal bin Asad al-Shaibani (died: 241 AH), Musnad of Imam Ahmad bin Hanbal, part 11, p. 452, reviewer: Shuaib Al-Arna'oot - Adel Morshed, and others. Supervision: Dr. Abdullah bin Abdul Mohsen Al-Turki, Publisher: Al-Resala Foundation, Edition: First, 1421 AH - 2001 A.D.
- Al-Shaybani, Abu Abdullah Ahmad bin Muhammad bin Hanbal bin Hilal bin Asad al-Shaibani (died: 241 AH), Musnad of Imam Ahmad bin Hanbal, part 30, p. 398, reviewer: Shuaib Al-Arna'oot - Adel Morshed, and others.
- Al-Tabari, Muhammad bin Jarir bin Yazid bin Katheer bin Ghalib al-Amali, Abu Ja'far al-Tabari (died: 310 AH), Al-Bayan Mosque in the interpretation of the Qur'an, part 3, p. 381, reviewer: Ahmed Muhammad Shakir, publisher: Al-Risala Foundation, Edition: First, 1420 AH 2000 A.D.
- Nasrollahzadeh, M., Sajjadi, M.G., Iravani, S., and Varma, R., Nanomaterials and Nanotechnology- Associated Innovations Against Viral Infection With Focus on Coronaviruses, Nanomaterials; 2020 (10) 1072.
- Supervision: Dr. Abdullah bin Abdul Mohsen Al-Turki, Publisher: Al-Resala Foundation, Edition: First, 1421 AH - 2001 A.D.
- World Health Organization Coronavirus disease (COVID-19) dashboard. Aug, 2020 (<https://covid19.who.int/>).
- www.healthline.com/health/coronavirus-prevention