

Reflection on public education and awareness in facing Corona Virus (COVID-19): Experiences from Saudi Arabia

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ABSTRACT

In December 2019, new cases of coronavirus (COVID-19) were reported in Wuhan, Hubei Province. To date, it has reportedly infected 5,406,282 people and death overtime was 343,562 globally. However, in Saudi Arabia, up-to-date, the number of confirmed cases is 76,726 with 411 deaths. The Saudi government has initiated a level-1 public health response to prevent the spread of the disease. Likewise, it is also essential to speed up the needed to produce vaccines and medication for treatment, which will be helpful as soon as possible to defeat COVID-19. The aim of this observational study was to provide a timely review of the characteristics of the COVID-19 outbreak including the clinical features and measures of treatment, prevention, and control for this disease in Saudi Arabia.

Keywords: coronavirus; pneumonia; COVID-19; prevention; control; public health; public education; awareness.

Introduction

The CoVID19 has several virulence factors, with a different pathogenic capacity^[1, 2]. Coronaviruses are large, enveloped, positive-stranded RNA viruses^[3, 4]. The first case of the new coronavirus (COVID-19) was confirmed in December 2019 in Wuhan, China. The virus is highly contagious, and the World Health Organization (WHO) declared a global health emergency on January 30, 2020^[5]. The infection can be easily transmitted from human to human or by touching infected surfaces. The virus can have many clinical symptoms, including fever, cough, fatigue, and shortness of breath. The first confirmed case in Saudi Arabia was reported on March 2, 2020. Aligning with the WHO's declaration of a global health emergency, the Saudi government applied critical rules to manage the COVID-19

pandemic, and the government emphasized the importance of protection measures regarding personal hygiene^[6]. The Saudi government has done the followings:

- 1- Selected 25 hospitals to manage COVID-19.
- 2- Established more than 2,200 beds to isolate COVID-19 cases.
- 3- Sequestered 80,000 beds in the health sector.
- 4- Assigned 8,000 beds for intensive care cases.
- 5- Acquired more than 2,000 beds in order to be ready for the infected people's isolation.
- 6- Placed specialized medical teams in each airport and at all border gates.
- 7- Suspended 469 visas for Umrah, notifying 6,500 Umrah agents around the world of the suspension.
- 8- Established a particular flight for residents from different countries around the world.
- 9- Suspended tourist visas for 22 countries.
- 10- Began online learning for more than 13 million students.
- 11- Established a partial curfew in all cities.
- 12- Leveraged delivery services such as medication delivery for patients, food delivery, and other cargo delivery.
- 13- Started more than 5 million workshops and online training courses.

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- 14- Authorities have implemented travel restrictions by suspending Umrah visas.

The precautionary measures implemented by Saudi Arabia's government meet the requirements enforced by the World Health Organization. Considering that the virus is highly contagious, it is more likely for a country to experience a surge in the number of people suffering from the disease^[7]. As of May 15, 2020, Saudi Arabia has more than 40,000 confirmed cases and more than 200 documented deaths from COVID-19^[8]. Based on COVID-19 cases in other major countries such as Italy, the health department needs to be fully equipped with the necessary materials to treat patients, such as more ventilators and ICU space^[9]. Training additional health personnel also ensures the country is not overwhelmed when the number of cases surges. Additional measures that meet global standards for containing the disease include the suspension of visas for Umrah, a travel restriction similar to that used by other nations to limit the spread of the disease^[10]. Suspending visas from many countries also ensures the transmission chain from other countries into Saudi Arabia is broken. The 22 countries in question have direct contact with Saudi Arabia and high numbers of documented COVID-19 cases^[11]. The travel bans to and from these 22 countries apply to both goods and people.

Many Saudi Arabian ministries are making their own efforts as well. The Ministry of Education has announced that more than 13 million students and 290,000 teachers have access to online learning platforms with approximately 900,000 examinations and quizzes and more than 2 million documents and other materials, including lectures, slides, projects, and seminars. The Ministry of Commerce has issued more than 800 Commerce permits, renewed more than 26,000 Commerce permits, and modified more than 3,000 Commerce permits. They also announced a guide for shops and markets including restrictions such as only allow one customer every ten meters, close all fitting rooms, place stickers on the ground to encourage social distancing, measure the temperatures of workers and costumers, and close all resorts. Moreover, they continue to protect the prices from getting high, thus more than 9,000 fines were issued for the retailers, most of them for raising prices. Customers should also follow indicated instructions, including wearing masks, maintaining social distance, using hand sanitizer, and only shopping together in pairs.

The Ministry of Health has played a major role in raising public awareness by introducing 605 pieces of educational media, including videos, infographics, and pictures^[12]. In April 2020 alone, their educational videos have been viewed 135,111,979 times, 4.9 billion SMS messages have been sent, and more than one million virtual consultations were conducted using social media (e.g., Twitter, Facebook, YouTube, Instagram, Telegram, and Snapchat) to reach as many community members as possible^[13]. Over 8,000 health practitioner volunteers contributed. 343,318 volunteer hours for 3.5 million

beneficiaries, and a COVID-19 research grant is to be applied by interested practitioners^[14].

Conclusion

COVID-19 is considered to be a complex issue in the world currently, affecting 80% of the world's countries. Originating in Wuhan, China, the disease was declared a global health emergency on January 30, 2020. The first case in Saudi Arabia was confirmed on March 2, 2020, and the number surged to more than 40,000 confirmed cases by March 15, 2020, causing the government to implement precautionary measures to limit the spread of this highly contagious disease. Authorities have implemented safety measures, such as training health practitioners on how to handle confirmed cases and help people recover from the disease. The police have also implemented strategies to expand health facilities' capacities to accommodate large numbers of patients. Authorities have implemented travel restrictions by suspending Umrah visas since it is regarded as a holy land for Muslim pilgrimages. Authorities have restricted travel from the many countries most affected by the disease, and they have implemented a curfew and lockdown in some regions. The measures implemented by the Saudi government meet the World Health Organization's standards and are equivalent to measures implemented by other nations profoundly affected by the disease, such as Italy. Authorities will prevent the spread of the virus from infected areas to uninfected areas via travel restrictions. Additional restrictions also limit activities, for example, curfews limit the chances of spreading the disease. Travel restrictions in many countries is another measure to ensure the transmission chain is broken. Most countries have direct contact with Saudi Arabia politically and economically and failing in the travel restrictions would increase the spread of the virus. These strategies in the article will worth traceable experiences.

References

1. Mohamed M S, Zohny Y M, El-Senousy W M, Abou A M. Synthesis and biological screening of novel pyrazoles and their precursors as potential antiviral agents. *Pharmacophores*. 2018; 9(1): 126-139.
2. Riccardi B, De Paoli T, Resta S. Proposal Innovative Probiosomial Tecnology for Strengthening of the Immune System. *Pharmacophores*. 2020; 11(3): 38-46.
3. Meconcelli G, Bazzoni G, Casu C. Auriculotherapy for stress management as selfhelp in isolation situations (COVID 19). *Int. J. Pharm. Phytopharm. Res.* 2020; 10(3): 1-2.
4. Alsaed R A, Aljehani N A, Alabdali A F, Alyazidi N S, Almuhanna F A, Alotaibi Z F, Alkhamis I H, Alnemer F M, Alsumur H M, Aljaryan J M, Alsalmi A O. Evaluation of Recent Updates Regarding Diagnosis and Management of

- Croup in Children. *Arch. Pharma. Pract.* 2019; 10(1): 11-15.
5. Mehta P, McAuley DF, Brown M, Sanchez E, Tattersall RS, Manson JJ, HLH Across Speciality Collaboration. COVID-19: consider cytokine storm syndromes and immunosuppression. *Lancet (London, England)*. 2020 Mar 28;395(10229):1033. Doi: 10.1016/s0140-6736(20)30628-0.
 6. Adhikari SP, Meng S, Wu YJ, Mao YP, Ye RX, Wang QZ, Sun C, Sylvia S, Rozelle S, Raat H, Zhou H. Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. *Infectious diseases of poverty*. 2020 Dec;9(1):1-2.
 7. WHO. 2020. COVID-19 situation reports. Retrieved May 16, 2020, from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>
 8. Huaxia. 2020. COVID-19 cases in Saudi Arabia rise to 44,830, death toll at 273 - Xinhua | English.news.cn. Retrieved May 16, 2020, from http://www.xinhuanet.com/english/2020-05/13/c_139054331.htm
 9. Remuzzi A, Remuzzi G. COVID-19 and Italy: what next?. *The Lancet*. 2020 Mar 13. Doi: 10.1016/s0140-6736(20)30627-9
 10. Ebrahim SH, Memish ZA. Saudi Arabia's drastic measures to curb the COVID-19 outbreak: temporary suspension of the Umrah pilgrimage. *Journal of Travel Medicine*. 2020 Apr;27(3):taaa029.
 11. Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L, Wang M. Presumed asymptomatic carrier transmission of COVID-19. *Jama*. 2020 Apr 14;323(14):1406-7. Doi: 10.1001/jama.2020.2565.
 12. Retrieved 20 May 2020, from <https://www.moh.gov.sa/Pages/Default.aspx>
 13. Retrieved 20 May 2020, from <https://mci.gov.sa/ar/pages/default.aspx>
 14. Retrieved 20 May 2020, from <https://www.moe.gov.sa/ar/Pages/default.aspx>.