ORIGINAL ARTICLE

Evaluation of Knowledge and Awareness regarding COVID-19 Disease among Medical and Dental students in Saudi Arabia

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Abstract

Objective: To evaluate the levels of information regarding the current emerging outbreak of coronavirus disease 2019 (COVID-19) among medical and dental students at universities in Saudi Arabia through an online questionnaire. **Methods**: A detailed structured questionnaire was prepared, containing demographic profiles and questions related to knowledge and awareness of the COVID-19 pandemic, and was emailed to 240 subjects, out of these, 209 responded to all the questions. **Results**: The majority of the respondents were aware of the current and past epidemics of the coronavirus diseases, and they heard about SARS or MERS (89.5%) and the COVID-19 pandemic (94.7%). Internet was the main source of information (63.1%) followed by professors and physicians (24.2%), print media (6.1%), television (4%), and family or friends (2.5%). The majority of respondents received information about COVID-19 from the Ministry of Health (85.6%) and 44.5% of respondents participated in the COVID-19 symposium or conference. Respondents of the college of Medicine were more aware (96.1%) about COVID-19 than respondents of the college of Dentistry (86.2%; p=0.02). **Conclusion**: The study finds a high level of COVID-19 awareness among medical and dental students at KSA universities. However, there is a need to study in a community-level assessment regarding knowledge about COVID-19.

Keywords

COVID-19; Healthcare Workers; Pandemic; SARS-CoV-2; Source Of Information

Introduction

In Wuhan city, Hubei province of China, numerous cases with pneumonia-like and acute respiratory symptoms, ranging from the common cold to severe acute respiratory syndrome (SARS) were reported during December 2019 (1). The causative pathogen was a newly reported virus belonging to the family of Coronaviruses, This newly identified virus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and the disease as COVID-19 by World Health Organization (WHO) in January 2020 (2), primarily infects the respiratory tract, by droplets, respiratory secretions and direct contact (3,4). It is a zoonotic pathogen that can be transmitted from animals to humans and between humans (5). Though most of the viruses belonging to this family of coronaviruses are associated with common but milder symptoms, multiple epidemic outbreaks occurred during 2003 (severe acute respiratory syndrome (SARS) coronavirus, SARS- with ~900 deaths (6) and 2012 (Middle East Respiratory Syndrome: MERS, with 860 deaths (7).

On 11th March 2020, the current outbreak COVID-19 has been declared a pandemic by WHO (8), as more than 170 countries around the world have reported the presence of infections, with more than 4,500,000 confirmed cases and more than 300,000 confirmed deaths (as of May 15, 2020). All the countries, including the middle east countries such as the Kingdom of Saudi Arabia, have implemented screenings and biochemical measurements for travelers coming from Wuhan City, Thailand, Japan, Singapore, Vietnam, the United States, Iran, and European countries especially Italy, France, and Spain.

The rapid increase in the number of cases having no prior animal exposure is suggestive of secondary person-to-person transmission. Most cases have been associated with fever and respiratory symptoms (coughing, shortness of breath, and pneumonia), especially in the elderly and individuals with chronic diseases (3). However, there is not much information available about COVID-19 first source of infection (patient number 0), but investigations are currently in progress. Several online training sessions are also initiated by WHO along with providing materials on COVID-19 in various languages to strengthen the preventive strategies, including raising awareness and training healthcare workers (HCWs) preparedness and activities. In several instances, misunderstandings of HCWs delayed controlling efforts to provide necessary treatment, implicated rapid spread of infection in hospitals, and also may put the patients' lives at risk. In this regard, the COVID-19 needs to be investigated at the level of knowledge, and perceptions of HCWs during this global health crisis (9,10,11).

Aims & Objectives

To evaluate the levels of information among students studying in medical and dental colleges in Hail and Taibah, KSA through an online questionnaire.

Material & Methods

This study is a descriptive cross-sectional study, conducted for 2 months between February 2020 and March 2020, involving students of medical and dental colleges at universities of Hail and Taibah in the Kingdom of Saudi Arabia. A detailed and structured questionnaire was prepared, containing demographic profiles and questions related to knowledge and awareness regarding the COVID-19 pandemic. Questionnaires were prepared in English and sent to all levels of students (from 1st till 6th year of education). The sample size was calculated using the software Raosoft Inc. (http://www.raosoft.com/samplesize.html).

Consent was taken from each student before the attempt. Questionnaires were divided into different sections such as a profile of responders, awareness about SARS-CoV and MERS-CoV and COVID-19, source of information, practices in COVID-19, and knowledge about different aspects of COVID-19, etc. The questionnaire was emailed to 240 subjects, out of these, 209 responded to all questions (response rate 87.1%).

Statistical analysis: The results are presented in frequencies and percentages. The Chi-square test was used for associations. The p-value <0.05 was considered significant. All the analysis was carried out on Microsoft Excel (Microsoft Corporation) and SPSS 16.0 version (Chicago, USA).

Results

The present study focused mainly on students (N = 209) from medical and dental colleges of Hail and

Taibah, KSA. [Table 1] describes the profiles of the respondents. The majority of respondents were from the College of Medicine (86.1%), and more than half of them were males (55%). The study included students from different years of their medical education. Though students from all years of education responded, the majority of the respondents were from 6th year (30.1%), 3rd year (22.5%), and 4th year (21.1%).

Most of the respondents were also aware of the current pandemic and past epidemics of the coronavirus diseases, and they heard both SARS or MERS (187 out of 209 students, 89.5%) and COVID-19 (198 out of 209 students, 94.7%) diseases [Figure 1].

Out of these 198 respondents, the main source of information was internet (N=125; 63.1%), followed by doctors (N=48; 24.2%), print media (N=12; 6.1%), television (N=8; 4%) and family or friends (N=5; 2.5%) [Figure 2].

The majority of respondents were aware of the efforts taken by the Ministry of Health, KSA to disseminate knowledge and information regarding COVID-19 among Saudi nationals. Moreover, 44.5% of respondents even participated in a symposium or conference of COVID-19 [Table 2].

The knowledge among respondents about different aspects of COVID-19 disease was shown in [Table 3]. The majority of respondents knew about the transmission of the disease. Though they responded in affirmative regarding the most common symptoms of the disease, like myalgia, shortness of breath, pneumonia, and dyspnea, most of the respondents did not have adequate knowledge about the various other less common symptoms of the disease, like sputum production, headache, and diarrhea. The majority of the respondents knew about the preventive measures and precautions to be taken against COVID-19, they had very little knowledge regarding the specific medication for the disease.

[Table 4] shows the association of awareness about COVID-19 with the profile of responders. Respondents of the college of Medicine were more aware (96.1%) about COVID-19 than respondents from the college of Dentistry (86.2%). The association of awareness about COVID-19 with the type of college was statistically significant (p=0.02). A similar finding was also observed for the level of education of the respondents; 2nd year till 6th year of students had statistically significant awareness regarding COVID-19 disease compared to students from 1st year of education. Male and female respondents had almost similar awareness about COVID-19.

Discussion

Currently, COVID-19 is a global discussion topic in the media and among the public, especially among HCWs and patients. While an increasing number of cases with COVID-19 infections raised tensions among everyone, including health officials and health systems, an important recurring question has arisen about how we can manage information to help frontline HCWs in times of public health crisis. For this reason, we investigated medical knowledge of medical and dental students of COVID-19 during a global epidemic via administering an online questionnaire. This is the first study in this area assessing knowledge about SARS or MERS and COVID-19 among medical students.

In this study, the majority of respondents were from the College of Medicine (96.1%). Even though we were impartial in our distribution of the questionnaire, and wanted an equal number of males and females, more than half of respondents were males (55%). One of the reasons for this could be that enough female students did not receive the questionnaire. This could also be the reason why there were fewer students in their first year of medical or dental education in our study. Whereas enough students from 2nd (12%), 3rd (22.5%), 4th (21%), 5th (11%), and 6th (30%) year participated in the survey, only 3.3% of first-year students responded to the questionnaire in the present study.

In a study by Aldohyan et al (12), the sample comprised of 404 HCWs, of which 64% were females and 36% were males. Almost 26% were ≤ 30 years old, and 42% had more than 10 years of work experience. Almost 46.5% were nurses, 23.0% physicians, 18.1% were pharmacists and 12.4% were the technical staff.

In the present study, the majority of respondents had heard about both SARS or MERS (89.5%) and COVID-19 (94.7%). This high percentage was of expected, since the earlier outbreaks by coronaviruses, SARS, and MERS, happened after 2002, and so are very recent. Moreover, the fatalities and modalities by these diseases were huge. Asaad et al (2019) found that knowledge scores about MERS revealed 51% of participants had sufficient knowledge among HCWs (13).

The current era is the era of technology and social media, and the majority of the population now depends on the internet to gain knowledge about new things. This was also evident in our study, as we found that the main source of information to the respondents was the internet (63.1%), followed by doctors (24.2%), print media (6.1%), television (4%), and family or friends (2.5%). Asaad et al (2019) found that 50% of the HCWs depended on the Ministry of Health website as the main source of information about MERS [13]. This differs from the findings of previously published studies, where social media and television were the main sources of information (14,15,16).

In the present study, the majority of respondents received any information about COVID-19 from the Ministry of Health (85.6%) and 44.5% of respondents participated in a symposium or conference of COVID-19. This was evident due to the extra efforts taken by the Ministry of Health to build awareness regarding the COVID-19 disease among the nationals, and showcasing necessary precautions and preventive measures to be taken in these desperate times. Respondents of the college of Medicine were more aware (96.1%) about COVID-19 than respondents of the college of Dentistry (86.2%). The association of awareness about COVID-19 with the type of college was statistically significant (p=0.02). Male and female had almost similar awareness about COVID-19. A similar finding was also found for education. Bhagavathula et al (17) reported that most of the HCWs used social media to obtain the information (61%) regarding COVID-19, and the majority of respondents knew different aspects of the disease. They also found that a significant proportion of HCWs had poor knowledge of its transmission (61%), and symptoms onset (63.6%) and showed a positive perception of COVID-19 prevention and control. Factors such as age and profession are associated with inadequate knowledge and poor perception of COVID-19.

The health authorities and scientists particularly warned the widespread misinformation of COVID-19 as a serious concern causing xenophobia across the world (18,19). In this regard, health professionals should practice with careful evaluation of COVID-19-related information and should use scientific and authentic content of information sources. The guidelines and advice from WHO on the test, track, and quarantine of COVID-19 cases should be followed, which will not only help contain the disease but it will also decrease the mortality rate.

Conclusion

The study finds a high-level knowledge of COVID-19 among medical students. However, there is a need to study in the community level assessment regarding knowledge about COVID-19 as well as laboratory assessment

Recommendation

It is recommended to conduct more awareness programs regarding current and past epidemics/pandemics in the form of seminars/symposiums at regular intervals in college for the medical and dental students. Moreover, students in all levels of study should be encouraged to participate in the survey in large numbers, as an increase in the sample size will lead to more accurate information and statistically significant results.

Limitation of the study

There are some limitations to the present study. Like any web-based, online survey, the data presented here depends highly on the respondents' fairness, sincerity, and reliability. Moreover, the sample size of the study was limited, and a community-based survey was not done in other parts of the country due to several administrative restrictions.

Relevance of the study

Our study is relevant to all healthcare professionals, including doctors and nurses, as they are the frontline warriors on the corona-front, and are continuously exposed to infected persons and the environment. A high level of awareness regarding the current COVID-19 pandemic among them plays a vital role in preventing and controlling the current health crisis effectively and promptly.

Authors Contribution

MS, FA, SAM, ASSK - conceived the idea, designed the study, analyzed and interpreted data, and wrote and revised the manuscript. HGA, MJA - performed the literature search and analyzed the data. MIAA, GASJ, RAMA, FAA, RASJ - performed the literature search and gathered all the relevant data.

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References

1. Zhu N, Zhang D, Wang W, Li X, Yang B, Song J, Zhao X, Huang B, Shi W, Lu R, Niu P, Zhan F, Ma X, Wang D, Xu W, Wu G, Gao GF, Tan W. A Novel Coronavirus from Patients with Pneumonia in China, 2019. N Engl J Med. 2020 Feb 20;382(8):727-733. doi: 10.1056/NEJMoa2001017. Epub 2020 Jan 24. PubMed PMID: 31978945; PubMed Central PMCID: PMC7092803.[PubMed].
2. World Health Organization. Naming the coronavirus disease (COVID-19) and the virus that causes it https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it2020
3. 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. Infect Dis Poverty. 2020 Mar 17;9(1):29. doi: 10.1186/s40249-020-00646-x. Review. PubMed PMID: 32183901; PubMed Central PMCID: PMC7079521.[Pubed].
4. Yin Y, Wunderink RG. MERS, SARS and other coronaviruses as causes of pneumonia. Respirology. 2018 Feb;23(2):130-137. doi: 10.1111/resp.13196. Epub 2017 Oct 20. Review. PubMed PMID: 29052924; PubMed Central PMCID: PMC7169239.[PubMed].
5. Paules CI, Marston HD, Fauci AS. Coronavirus Infections-More Than Just the Common Cold. JAMA. 2020 Feb 25;323(8):707-708. doi: 10.1001/jama.2020.0757. PubMed PMID: 31971553.[PubMed].
6. Chan-Yeung M, Xu RH. SARS: epidemiology. Respirology. 2003 Nov;8 Suppl:S9-14. doi: 10.1046/j.1440-1843.2003.00518.x. Review. PubMed PMID: 15018127; PubMed Central PMCID: PMC7169193.[PubMed].
7. Lu R, Zhao X, Li J, Niu P, Yang B, Wu H, Wang W, Song H, Huang B, Zhu N, Bi Y, Ma X, Zhan F, Wang L, Hu T, Zhou H, Hu Z, Zhou W, Zhao L, Chen J, Meng Y, Wang J, Lin Y, Yuan J, Xie Z, Ma J, Liu WJ, Wang D, Xu W, Holmes EC, Gao GF, Wu G, Chen W, Shi W, Tan W. Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. Lancet. 2020 Feb 22;395(10224):565-574. doi: 10.1016/S0140-6736(20)30251-8. Epub 2020 Jan 30. PubMed PMID: 32007145; PubMed Central PMCID: PMC7159086.[PubMed].
8. World Health Organization. Coronavirus disease (COVID-2019) situation reports 2020 [Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports.
9. Hoffman SJ, Silverberg SL. Delays in Global Disease Outbreak Responses: Lessons from H1N1, Ebola, and Zika. Am J Public Health. 2018 Mar;108(3):329-333. doi: 10.2105/AJPH.2017.304245. Epub 2018 Jan 18. PubMed PMID: 29345996; PubMed Central PMCID: PMC5803810.[PubMed].
10. McCloskey B, Heymann DL. SARS to novel coronavirus - old lessons and new lessons. Epidemiol Infect. 2020 Feb 5;148:e22. doi: 10.1017/S0950268820000254. PubMed PMID: 32019614; PubMed Central PMCID: PMC7026896.[PubMed].
11. Selvaraj SA, Lee KE, Harrell M, Ivanov I, Allegranzi B. Infection Rates and Risk Factors for Infection Among Health Workers During Ebola and Marburg Virus Outbreaks: A Systematic Review. J Infect Dis. 2018 Nov 22;218(suppl_5):S679-S689. doi: 10.1093/infdis/jiy435. PubMed PMID: 30202878; PubMed Central PMCID: PMC6249600.[PubMed].
12. Aldohyan M, Al-Rawashdeh N, Sakr FM, Rahman S, Alfarhan AI, Salam M. The perceived effectiveness of MERS-CoV educational programs and knowledge transfer among primary healthcare workers: a cross-sectional survey. BMC Infect Dis. 2019 Mar 21;19(1):273. doi: 10.1186/s12879-019-3898-2. PubMed PMID: 30898086; PubMed Central PMCID: PMC6427879.[PubMed].
13. Asaad A, El-Sokkary R, Alzamanan M, El-Shafei M. Knowledge and attitudes towards Middle East respiratory sydrome-coronavirus (MERS-CoV) among health care workers in south-western Saudi Arabia. East Mediterr Health J. 2020 Apr 16;26(4):435-442. doi: 10.26719/emhj.19.079. PubMed PMID: 32338362.[PubMed].
14. Al-Hazmi A, Gosadi I, Somily A, Alsubaie S, Bin Saeed A. Knowledge, attitude and practice of secondary schools and university students toward Middle East Respiratory Syndrome epidemic in Saudi Arabia: A cross-sectional study. Saudi J Biol Sci. 2018 Mar;25(3):572-577. doi: 10.1016/j.sjbs.2016.01.032. Epub 2016 Jan 23. PubMed PMID: 29686521; PubMed Central PMCID: PMC5910645.[PubMed]
15. Almutairi KM, Al Helih EM, Moussa M, Boshaiqah AE, Saleh Alajilan A, Vinluan JM, Almutairi A. Awareness, Attitudes, and Practices Related to Coronavirus Pandemic Among Public in Saudi Arabia. Fam Community Health. 2015 Oct-Dec;38(4):332-40. doi: 10.1097/FCH.0000000000000082. PubMed PMID: 26291193.[PubMed].
16. Kim CJ, Choi WS, Jung Y, Kiem S, Seol HY, Woo HJ, Choi YH, Son JS, Kim KH, Kim YS, Kim ES, Park SH, Yoon JH, Choi SM, Lee H, Oh WS, Choi SY, Kim NJ, Choi JP, Park SY, Kim J, Jeong SJ, Lee KS, Jang HC, Rhee JY, Kim BN, Bang JH, Lee JH, Park S, Kim HY, Choi JK, Wi YM, Choi HJ. Surveillance of the Middle East respiratory syndrome (MERS) coronavirus (CoV) infection in healthcare workers after contact with confirmed MERS patients: incidence and risk factors of MERS-CoV seropositivity. Clin Microbiol Infect. 2016 Oct;22(10):880-886. doi: 10.1016/j.cmi.2016.07.017. Epub 2016 Jul 27. PubMed PMID: 27475739; PubMed Central PMCID: PMC7128923.[PubMed].
17. Bhagavathula AS, Aldhaleei WA, Rahmani J, Mahabadi MA, Bandari DK. Knowledge and Perceptions of COVID-19 Among Health Care Workers: Cross-Sectional Study. JMIR Public Health Surveill. 2020;6(2):e19160.
18. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. Int J Antimicrob Agents. 2020 Mar;55(3):105924. doi: 10.1016/j.ijantimicag.2020.105924. Epub 2020 Feb 17. PubMed PMID: 32081636; PubMed Central PMCID: PMC7127800.[PubMed].
19. Shimizu K. 2019-nCoV, fake news, and racism. Lancet. 2020 Feb 29;395(10225):685-686. doi: 10.1016/S0140-6736(20)30357-3. Epub 2020 Feb 11. PubMed PMID: 32059801; PubMed Central PMCID: PMC7133552.[PubMed].

Tables

TABLE 1 PROFILE OF THE RESPONDERS

Profile	Number (n=209)	%
College		
College of Medicine	180	86.1
College of Dentistry	29	13.9
Gender		
Male	115	55.0
Female	94	45.0
Education		
1st year	7	3.3
2nd year	25	12.0
3rd year	47	22.5
4th year	44	21.1
5th year	23	11.0
6th year	63	30.1

TABLE 2 PRACTICES ABOUT COVID-19

Practices about COVID-19#	No. (n=209)	%
Received any information about COVID-19 from the Ministry of Health	179	85.6
Participated in any symposium or Conference of COVID-19	93	44.5
#Multiple responses		

TABLE 3 KNOWLEDGE AND AWARENESS ABOUT DIFFERENT ASPECTS OF COVID-19 PANDEMIC

Knowledge about different aspects of COVID-19#	Number (n=209)	%
COVID-19 is an emerging outbreak	189	90.4
COVID-19 can be transmitted through respiratory droplets	205	98.1
COVID-19 can be transmitted from person to person	203	97.1
COVID-19 can be transmitted from animal to person	160	76.6
COVID-19 can be transmitted through talk with other	163	78.0
COVID-19 can be transmitted through ocular surface	139	66.5
COVID-19 can be transmitted through handshakes with other	190	90.9
COVID-19 can be transmitted through aerosol	143	68.4
COVID-19 can cause multiple infections	135	64.6
A symptom of COVID-19 is myalgia or fatigue	167	79.9
A symptom of COVID-19 is shortness of breath	192	91.9
Sputum production is a less common symptom of COVID-19	77	36.8
Headache is a less common symptom of COVID-19	59	28.2
Diarrhea is a less common symptom of COVID-19	85	40.7
COVID-19 can develop pneumonia in patients	170	81.3
COVID-19 can develop dyspnea in patients	174	83.3
COVID-19 infection can directly lead to death	138	66.0
COVID-19 infected person can be cured	179	85.6
COVID-19 infected person can be without any symptoms	143	68.4
Any specific medicine for COVID-19 infection	39	18.7
Any preventive measure against COVID-19 infection	174	83.3
Any precaution should be taken against COVID-19 infection	179	85.6
Any vaccine against COVID-19	19	9.1
COVID-19 infection is a pandemic	173	82.8
#Multiple responses		

TABLE 4 ASSOCIATION OF AWARENESS ABOUT COVID-19 WITH PROFILE OF RESPONDERS

Profile	Number of respondents	Awareness about COVID-19				p-value
		Yes		No		
		No.	%	No.	%	
College						
College of Medicine	180	173	96.1	7	3.9	**0.02***
College of Dentistry	29	25	86.2	4	13.8	
Gender						
Male	115	109	94.8	6	5.2	0.97
Female	94	89	94.7	5	5.3	
Education						
1st year	7	5	71.4	2	28.6	**0.03***
2nd year	25	25	100.0	0	0.0	
3rd year	47	43	91.5	4	8.5	
4th year	44	43	97.7	1	2.3	
5th year	23	21	91.3	2	8.7	
6th year	63	61	96.8	2	3.2	

Figures

FIGURE 1 AWARENESS REGARDING SARS OR MERS (N = 187; % = 89.5%) AND COVID-19 (N =198; % = 94.7%) AMONG MEDICAL AND DENTAL STUDENTS IN UNIVERSITIES OF HAIL AND TAIBAH, KSA.

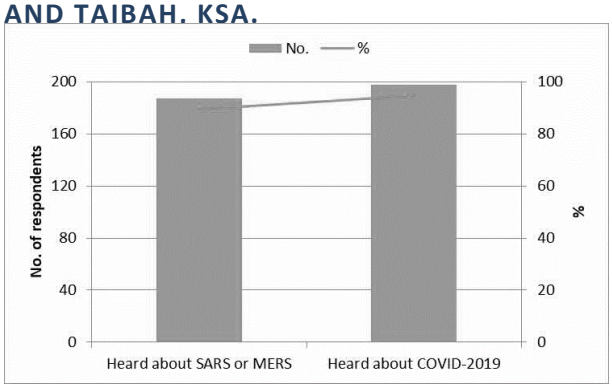

FIGURE 2 BAR GRAPH REPRESENTING THE "FIRST" SOURCE OF INFORMATION ABOUT COVID-19.