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Research Article

Knowledge and Attitude of Dentists toward Delta Strain of COVID-19 Virus in Al-Ramady, Iraq

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I N F O

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A B S T R A C T

Background: The infection started in China soon expanded to become a global pandemic in 2020. Due to the emergence of variants, the world has witnessed many waves of cases and deaths. Successful control and reduction of deaths require changing the behaviour, which is influenced by the knowledge, attitude and practices of the people.

Objective: To assess the knowledge and attitude of dentists toward the delta strain of the COVID-19 virus in Al-Ramady, Iraq.

Methodology: A cross-sectional study has been carried out by a questionnaire constructed for the purpose of the study distributed by the internet to 144 dentists working in Al-Ramadi city.

Results: A total of 112 dentists participated in this study, 58.9% were male. More than half of them gain their knowledge from social media. About the best measure in prevention 33.9% answered by "Distancing" and 28.6% by "Wearing mask". About one-third of them thought that the main presenting feature was cough, followed by fever at a rate of 26.8%. 58.9% of the interviewed dentists believed that the new strain was more dangerous and 78.6% believed that it was a more transmissible strain. That raised the rate of fear from getting an infection with the new strain of the virus to 80.4% and made a fear from contacting people reach (89.3%).

Conclusion: Social media is an important source of knowledge for dentists who were aware of the new strain. They perceived the disease as dangerous and transmissible.

Keywords: COVID-19, Pandemic, New Strain, Prevention, Dentists

Introduction

Coronavirus is one of the major pathogens that primarily targets the human respiratory system. Previous outbreaks of coronaviruses include severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) which have been considered as a great public health threat.[1] The novel coronavirus that emerged in Wuhan, China, in December 2019, was labelled as Severe Acute Respiratory

Syndrome-corona virus 2 (SARS-CoV-2 or COVID-19), spread to the whole world in a very short period.[2,3] It was declared as a global pandemic by WHO on March 2020.[4]

Having knowledge about basic hygiene principles and modes of transmission of the disease was of vital importance to contain the disease.[4] People's adherence to control measures are essential, which is largely affected by their knowledge, and attitudes towards COVID-19. These are associated with the population's panic level, which can further complicate the efforts to prevent the disease from spreading.[5]

Poor understanding of the disease among the high-risk groups such as dentists is implicated in this increase in the spread of the infection and death.[6] Therefore, successful control in order to provide guidance for a successful preventive measure in the field of dentistry and reduction of morbidity and mortality due to COVID-19, which is influenced by the knowledge of the people.[6]

During pandemics, induction of the public to become active participants may help reduce the overall vulnerability of people.[7] If people practice personal hygiene and distancing, it is possible to control the disease.[8]

In this study, we aimed to investigate the knowledge and attitude towards the new strain (Delta COVID-19) during the rapid outbreak and to explore the awareness and behaviours among dentists.

Methodology

A descriptive cross-sectional study has been carried out on dentists. The period of the study was between June and July 2021. A sample of 144 dentists working in the health services was invited to participate in this study on a voluntary basis. They work in the College of Dentistry, Anbar University and in the primary health services centres in Al-Ramadi city in Iraq. A questionnaire was constructed for the purpose of the study, making use of similar studies. The questionnaire was distributed by the internet to be filled in and returned. The collected data were grouped and represented in frequencies and percentages. The statistical analysis was carried out by SPSS.

Ethical approval for the study was obtained from the University of Anbar, College of Dentistry. The study was discussed with the dentists and those who agreed to participate and gave consent were included in the study.

Results

A total of 112 dentists participated in this work. 58.9% were male, and the mean age was 35.7 ± 10.1 years. The respondents were of high education level, 46.7% were just graduated dentists (Table 1).

The responders claim that they gain their knowledge from social media at a rate of 61%, while lectures and workshop represent only 9% of the data (Figure 1).

Table 1.Demographic Characteristics of the Study Group

Demographic Characteristics (N = 112)		n	%
Gender	Female	46	41.1
	Male	66	58.9
Age groups (years)	15-20	2	1.8
	21-30	40	35.7
	31-40	32	28.6
	41-50	28	25.0
	51-60	10	8.9
Education	BDS	52	46.4
	MSc	22	19.6
	PhD	38	33.9

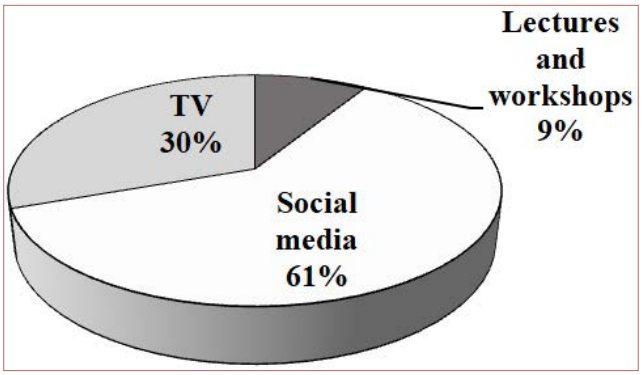

Figure 1.Source of Knowledge

Table 2.Knowledge Level of the Study Group regarding the Epidemiology of the Disease

Variables (N = 112)		n	%
Transmission	Direct	20	17.9
	Droplet	88	78.6
	Surfaces	4	3.6
Preventive measures	Avoid eye nose mouth touch	10	8.9
	Distancing	38	33.9
	Using antibiotics	4	3.6
	Vaccination	28	25.0
	Wearing mask	32	28.6
Isolation	Agree	108	96.4
	Disagree	2	1.8
	Don't know	2	1.8
Best way	Go to hospitals	24	21.4
	Home isolation	88	78.6

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Table 3.Knowledge Level of the Study Group regarding the Presentation of the Disease

Variables (N = 112)		n	%
Symptoms	Breathing difficulties	16	14.3
	Dry cough	40	35.7
	Fever	30	26.8
	Loss of smell & taste	24	21.4
	Muscle pain	2	1.8
Chronic diseases	Agree	104	92.9
	Disagree	2	1.8
	Don't know	6	5.4

Table 4.Beliefs and Attitude of the Study Group toward the Delta Strain of Corona Disease

Beliefs and Attitude the New Strain (N = 112)		No n (%)	Yes n (%)
Beliefs	More dangerous	46 (41.1)	66 (58.9)
	More transmission	24 (21.4)	88 (78.6)
Attitude	Fear of getting infection	22 (19.6)	90 (80.4)
	worry about this strain	14 (12.5)	98 (87.5)
	Fear of contact with people	12 (10.7)	100 (89.3)
	Fear of closed area	8 (7.1)	104 (92.9)
	Win the fight against new strain	26 (23.3)	86 (76.7)

Most of the participants (88, 78.6%) thought that the disease was transmitted by droplets. About the best measure in prevention (38, 33.9%) answered "Distancing" and 32 (28.6%) preferred wearing masks. Majority of responders (108, 96.4%) agreed with the isolation of patients. As a selection between going to the hospital and home isolation when encountering COVID-19 infection, 88 (78.6%) chose the second selection (Table 2).

Table 3 reflects the knowledge of the participants about the presentation of the disease. Where 40 (35.7%) of them thought that the main presenting feature was cough, followed by fever at a rate of 30 (26.8%). 92.9% of the participants agreed that having a chronic disease meant a higher risk of getting infections.

Table 4 revealed that 66 (58.9%) of the interviewed dentists believed that the new strain was more dangerous and 88 (78.6%) believed that it was a more transmissible strain. That raised the rate of fear from getting an infection with the new strain of the virus to 80.4% and made a fear from contacting people reach 89.3%. More than three-quarters of the responders had a positive attitude toward winning the battle against this new strain of the COVID-19 virus.

Discussion

The rapid spread of COVID-19 and without available treatment is a big public problem in the world. Therefore, prevention is of utmost importance. Raising the level of knowledge and good practising are intended to be achieved to ensure good prevention.

The respondents were of high education level, near half of them were just graduated dentists, 19.6% were Master degree and the remaining 33.9% were PhD degree. This point to the ease in the use of information and communication technologies. Therefore, they were more likely to search for knowledge about COVID 19 by social media (more than half of the responders in this study) this was inconsistent with the study by Bhagavathula AS et al. where 60% of their sample obtained information from social media.[9] But against Ribeiro's study, they found that the main source of information was TV and/ or radio (59.9%).[6] While in our study TV constituted 30% of the source for information.

In an Iranian study, 75.1% of the participants held an academic degree so they easily access a reliable source of information.[4] Khasawneh AI et al. found that only 16.6% of participants in their study never used social media as a source of information. That is why he said, "This should alert policymakers to the importance of social media in disseminating information to the public, especially in cases of pandemics".[10]

Most of the participants (88, 78.6%) in this study thought that the disease was transmitted by droplets. About the best measure in prevention 38 (33.9%) answered by "Distancing" and 32(28.6%) by "Wearing mask". Majority of responders (108, 96.4%) agreed with the isolation of patients. As a selection between going to the hospital and home isolation when encounter COVID-19 infection, 88 (78.6%) chose the second selection. The use of face masks was initially not widely accepted because they were not convinced about their benefits to persons.[8] In a similar study from India conducted by Nazli T et al., it was found that the perceived efficacy of preventive measures was social distancing (77.3%), hand washing (75.3%) and wearing a mask (48%).[11] In the Ribeiro study, only 36.6% of the study participants wore a mask when leaving home.[6] While in China nearly all of the participants (98.0%) wore masks when leaving their homes.[12] In a study by Rahman & Sathi, 91.4% went with wearing masks when going outside.[3]

The response of participants about the symptoms and presentation of the disease showed 40 (35.7%) of them

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thought that the main presenting feature was cough, followed by fever at a rate of 30 (26.8%). Majority of the participants agreed that having a chronic disease meant a higher risk of getting infections. A study conducted by Carvalho Alves MF et al. revealed that the participants had a high level of knowledge about the signs and symptoms of COVID-19.[13]

More than three-quarters of the respondents in the current study had a positive attitude toward winning the battle against this new strain of the COVID-19 virus. This finding also was seen in participants of other studies.[4,12] The rate in this study is less than what was found in a study in China where 97.1% of participants believed in winning the battle against the disease.[11] Hussain relate this better attitude among the participants of China to good health care facilities in China and may be the better economic status of the country.[5]

The study sample in the current study is graduated dentists that is why 98 (87.5%) worried about this strain and 90 (80.4%) feared getting the infection. A study by Oghenekaro GE et al. also reported a high level of fear of contracting the virus in a majority of respondents.[8]

Sometimes there may be a lag between knowledge and positive attitude and good practising. Salman et al. found in their study in Pakistan a satisfactory level of knowledge among health workers, but there was "some misconception, misperceptions and malpractices".[14]

A small sample size, medical degree of the participants, and a light touch of the subject were a limitation to this study.

Conclusion

Social media has been found to be the most important source of knowledge for dentists in terms of the new strain of coronavirus. They considered the disease as dangerous and transmissible and took important measures against the pandemic.

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Conflict of Interest: None

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