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Awareness of COVID-19 among dental students: A preliminary study

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Abstract

The aim of this study was to assess the awareness regarding COVID-19 among dental students in teaching institutions in India.

Materials and Methods: A total of 104 subjects participated in this survey. An anonymous, self-administered, verified multiple choice questionnaire was administered to obtain information from the subjects. It included 5 questions on awareness regarding COVID-19 comprising of aetiology, mode of transmission, clinical features, treatment options and dental precautions.

Results: Percentage of subjects who correctly answered questions of COVID-19 were 95.2% for aetiology, 52.9% for clinical features, 94.2% for primary mode of transmission, 54.9% for treatment options and 56.7% for dental precautions.

Conclusion: The findings of the present study showed that some notable deficiencies in knowledge existed among dental students regarding some vital aspects of COVID-19. Therefore, there appears to be an urgent need for improving dental students' awareness via health education and training programs.

Keywords: Awareness, coronavirus, COVID-19, dentist

1. Introduction

The COVID-19 is a kind of infection that can be sent from other living creatures to people. As such in other cases, this infection changes when it passes to people, further prompting a human-to-human spread. The COVID-19 infection can advance in various stages, for example, from a mellowed state to a moderate, and finally a serious stage. Such infections are in a much of a similar gathering as Severe Acute Respiratory Syndrome (SARS) of 2002 and Middle East Respiratory Syndrome (MERS) of 2012. The new COVID-19 is by and large an illness that shows its manifestations of high fever. In many cases, patients may persevere themselves through immense respiratory pain. Likewise, it has been demonstrated that various manifestations, for example, queasiness, regurgitating of food, looseness of the bowels, muscle-joint agony, and loss of hunger may happen. In extreme cases, pneumonia with serious respiratory disappointment, kidney function retardation, and eventually the demise of the infected patients may happen. This is the present status of COVID-19 pandemic in the world [1-2].

The Coronavirus is easily identifiable in the salivation of tainted patients, so dental/oral and other medical services experts specifically ought to be cautious in securing against the spread of the infection. Transmission is akin to other respiratory sicknesses; it can happen with drops that shot out during talking, sneezing, or wheezing and furthermore through mist concentrates generated during the use of dental clinical systems. In this interactive capacity, dental specialists may give a chance to infection transmission from unrecognized COVID-19-tainted patients and patients under observation. It seems rather conceivable to have many asymptomatic contaminations by this way. Hence, the transmission may happen unknowingly, even before indications of the infection show up [1-3].

Routine dental practices that emanate pressurized spray products represent a danger to patients, dental specialists, and auxiliary staff. As with other oral procedures, utilizing of vaporizers during dental treatments may comprise a high hazard of health for the concerned

individuals. This is specially in regard of the inward breath of these emanated airborne particles. This may not include a visual transmission, but it enables making these individuals to be straightforwardly submitted to getting the infection [2, 3].

The medical and dental specialists and pupils should be ever so cautious and should create effective transmission preventive systems to evade COVID-19. These may include, for instance, hand cleanliness, individual infection defensive gear and cross air purification methodology for all staff when performing airborne transmitting dental/medical techniques. It is unavoidable that dentistry workforce may be deficient in clinical experience, and relatedly, will be more presented to acquiring this illness. In past survey and other examinations, word related openness to infective sicknesses in dental resources has been accounted to be relatively high. The current survey was done among different dental students in various levels to discover their mindfulness about COVID-19 [1-3].

2. Materials and methods (Times New Roman, 12, Bold)

The cross-sectional survey-based examination was held among 104 undergraduate dental pupils, who willingly agreed to participate in the survey. The members were working in both preclinical and clinical training. A survey was created containing 5 inquiries regarding the etiology, clinical features, mode of transmission, treatment options and dental precautions and practices in regard of the illness of COVID-19. The survey was conducted remotely by contacting the students by electronic form means. Total 110 students were contacted, out of which 6 declined to participate in the survey. It was ensured that the survey was completely anonymous, and no home or personal identifiers were utilized in the study. It was clarified toward the start of the poll that the motivation behind the information assortment was for logical exploration. The reaction rate to the survey was 94.54%). At the point when we directed this survey to the pupils, they were proceeding with their training on the web on online platforms. Since there are not many known investigations on dentistry pupils concerning COVID-19, specific topic contemplates identified with COVID-19 sicknesses were utilized to make

the study. The inquiries were arranged and organized in five main sections. In the initial segment, the members were approached to supply segmental information regarding their gender, with no identifying information whatsoever. In the subsequent part, questions were designed to obtain some information about the etiology, clinical features, mode of transmission, treatment options and dental precautions, e.g., the dreaded thought of contaminating themselves in their current circumstance while treating somebody with COVID-19. These questions were able to ascertain some information about biosafety strategies applied for COVID-19, especially in the dental field, including individual and general disease control precautions.

3. Results

Socio-demographic characteristics of study subjects is depicted in Figure-1. The present study included a total of 104 subjects in which female subjects (73, 70.2%) were in clear majority as compared to male subjects (31, 29.8%). All subjects were dental students pursuing a graduate degree in dentistry and majority of the subjects were engaged in both academic and clinical training. Response to questions regarding COVID-19 Subjects' response towards questionnaire regarding COVID-19 is depicted in Table 1 and figure-2. Percentage of subjects who correctly answered questions of COVID-19 were 95.2% for etiology, 52.9% for clinical features, 94.2% for primary mode of transmission, 54.9% for treatment options and 56.7% for dental precautions. As far as the extent of knowledge/mindfulness level of subjects is concerned, just the etiology and method of transmission recorded actual high scores. The subjects revealed that they had much lesser information scores with respect to the clinical features, treatment choices and dental precautionary measures as demonstrated in table 1 and figure 2. This obviously shows that the pupils should be additionally instructed with respect to the illness and should refresh their data routinely. This is critical in the current clinical situations occasionally associated, and in the present pandemic situation.

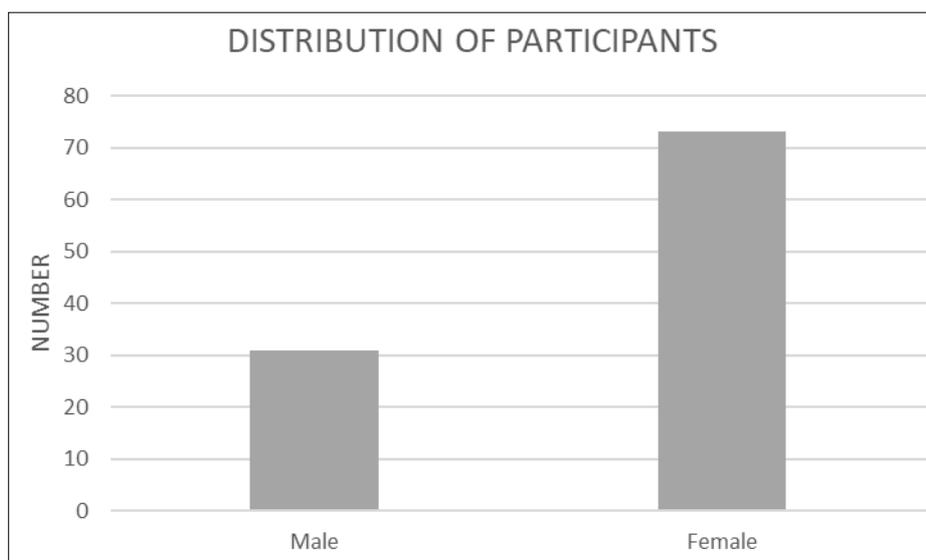


Fig 1: Distribution of participants

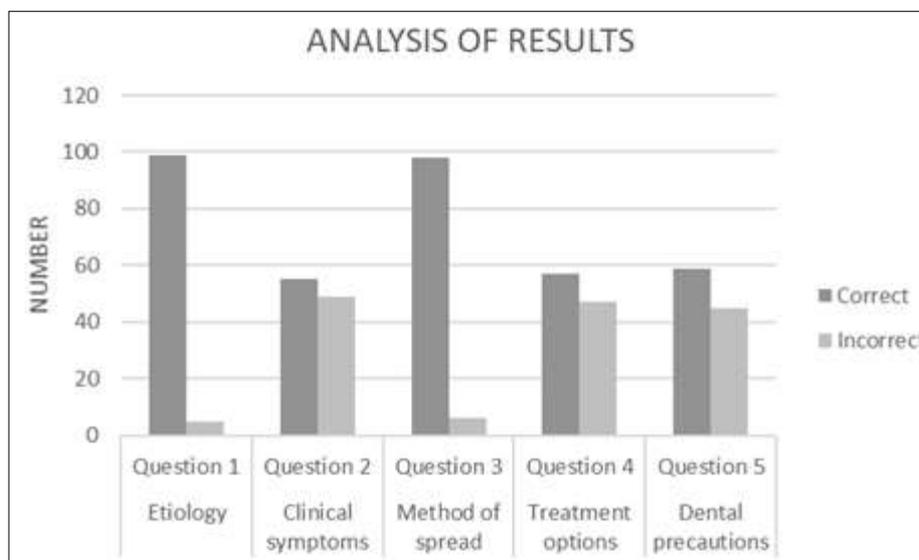


Fig 2: Analysis of data obtained

Table 1: Data obtained from the study

Topic	Question number	Correct responses	Incorrect responses
Etiology	Question 1	99 (95.19%)	5 (4.81%)
Clinical symptoms	Question 2	55 (52.88%)	49 (47.12%)
Method of spread	Question 3	98 (94.23%)	6 (5.77%)
Treatment options	Question 4	57 (54.80%)	47 (45.20%)
Dental precautions	Question 5	59 (56.73%)	45 (43.27%)

4. Discussion

Dental specialists, dental pupils, and auxillary staff are at a much more danger of experiencing the specific COVID-19 microorganism contamination. These may be sent through blood or other body liquids, and these people can easily acquire them than the ordinary populace. The way to lessening and forestalling spread of different microorganisms is by exacting a foolproof adherence to the strictest disease control methods. Hence, the information about the disease and mentality of the dental pupils towards COVID-19 is important. Also, pupils who have begun clinical therapy on patients in the facility should have vital information related to the disease. Less experienced pupils are probably going to be more vulnerable to the danger of contamination and sicknesses from COVID-19 [4-6].

The pandemic spread by COVID-19 has placed the entire world in a highly sensitive situation as a huge number of people are losing their lives each day in view of this perilous illness. To the most common insight of the world, the pandemic has affected almost all parts of the world. The information and familiarity with the disease by the dental experts with respect to this lethal infection is of utmost importance. In this study, a close ended poll was utilized in the desire to accomplish a speedier reaction from the subjects in this condition of emergency. It was seen in this survey study that a greater part of the subjects had reasonable information with respect to COVID-19 etiology and mode of transmission, and there were vital insufficiencies in a portion of the clinical perspectives, treatment options and dental considerations. Ongoing exploration in the world has seen that asymptomatic patients and patients in their disease-free period are additionally transporters of this specific infection which can prompt sickness transmission [7-9].

Over 90% of subjects knew about the reality of etiology and mode of transmission in the current investigation, but only 50% knew about the clinical features, treatment methods and

dental precautionary safeguards. The utilization of individual infection defensive gear similar to masks (N-95), gloves, outfits, and goggles or face shields, is prescribed to shield from possibly contaminated blood or respiratory discharges. Suitable use of this individual infection defensive gear fundamentally decreases danger of viral transmission. Amazingly, just about one portion of subjects in the current examination were not completely mindful with respect to the clinical highlights, treatment choices and dental safeguards. Following the pandemic caution by WHO, Governments everywhere on the world have given dedicated offices to novel COVID-19 testing for suspected cases at designated regions all throughout their nations. The best and conservative method to forestall and control the spreading of this infection is vaccine which produces antibodies. While the immunization against COVID-19 is in progress in numerous nations, there are some that have still been leading clinical trials. Dental crises in this situation can happen and worsen in a brief period and hence needs quick treatment. Till now, there has been no agreement on the arrangement of dental treatment administrations during the current pandemic. Even though it is matter of individual decision, a large number of dental specialists are giving emergency critical dental treatment at their facilities [10-13].

As of now there is no treatment accessible to treat COVID-19, so the administration of COVID-19 vaccine has been to a great extent a strong method of prevention of transmission. It incorporates counteraction to the disease contamination and acts as a control measure to bring down the danger of transmission and segregation. Also, Hand cleanliness has been viewed as the most imperative measure for limiting the danger of spreading the COVID-19 microorganisms to the patients. It is grounded that alcohol rub or soap and water to clean hands after treating patients adequately forestalls the transmission of the illness. COVID-19 virus can remain persevered on surfaces for a couple of hours or as long as a

few days, contingent upon the idea of surface, the temperature, or the dampness of the climate^[14, 15].

5. Conclusion

The current investigation inferred that most of the subjects had good knowledge about the etiology and mode of transmission but had much less knowledge satisfactory information with respect to clinical features, treatment modalities and dental preventive measures. There was lacking information about significant viewpoints like information with respect to clinical highlights, medicines, and safety measures to be taken as very nearly one-half portion of subjects detailed less scores. These discoveries unmistakably show the significance of improving subjects' COVID-19 information by means of well-being and schooling. Also, it should involve preparing of programs on disease control and cleanliness rehearsals for COVID-19 across all medical and dental care realms.

6. Acknowledgments

None

7. References

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