



The Awareness, Perception, and Attitude Regarding COVID-19 and Infection Control among Trinidad and Tobago Dentists

Co- Authors: Priya Jagroo, Sadiyah Jahoor, Kamilia Khemkaran, Pankaj Kissoonsingh Jonathan Ramdeen, Leonardo Rodriguez, William Outridge. Supervisors: Dr. Trudee Hoyte, Dr. Anne Kowlessor.

¹Department of Dentistry, Faculty of Medical Sciences, The UWI

e: priya.jagroo@my.uwi.edu supervisors' email: Trudee.Hoyte@sta.uwi.edu Anne.Kowlessor@sta.uwi.edu



Introduction

- COVID-19 is a highly infectious virus that became a pandemic in January 2020.
- The respiratory pathogen, SARS-CoV-2, has been identified as the causative agent.
- Worldwide, dentists have been severely affected as they are in close contact to patients and saliva.
- COVID-19 displays flu-like symptoms and respiratory problems. With the onset of the pandemic, new regulations to the dental profession have been implemented.

Objective

- To investigate COVID-19 and infection control amongst dentists in Trinidad and Tobago.
- To assess COVID-19 and dentists' awareness.
- To assess COVID-19 and dentists' perception and attitude.
- To assess the impact of COVID-19 on dental practices.

Methodology

- The survey was conducted after obtaining ethical approval from The University of The West Indies ethics committee (Ref: CREC-SA.0676/01/2020).
- A cross-sectional survey using a self-administered questionnaire containing both open and close ended questions was the main form of obtaining data.
- A pilot survey was conducted on 12 dentists to ensure the comprehension and clarity of the questions.
- The survey was then emailed to the 587 registered dentists using an anonymous online survey platform known as Survey Planet.
- Data was collected from February 9 to April 9 2021. The data was analyzed using the SPSS 27 software.

Results

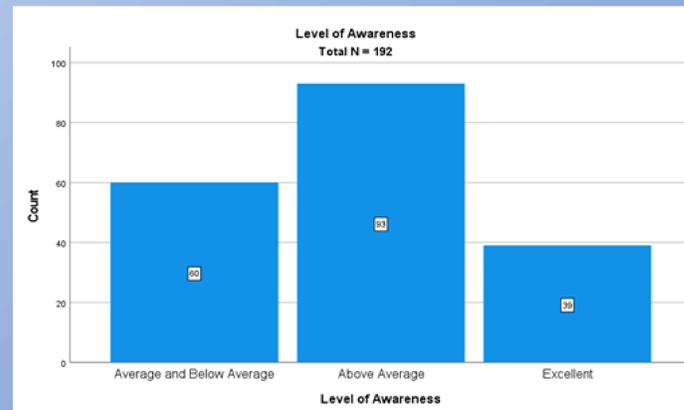


Figure 1: Showing the level of awareness among the participants

Table 2. Chi-square and Fisher exact test results for knowledge and awareness of COVID-19 by the dental profession, $p < 0.05$.

Variable	Dentist (n = 155)	Specialist (n = 37)	Total (n = 192)	P
Q.3. Most common symptoms of COVID-19 virus infection				
Fever	144 (92.9%)	31 (83.8%)	175 (91.1%)	0.022
Dry cough	124 (80%)	29 (78.4%)	153 (79.7%)	0.439
Conjunctivitis	10 (6.5%)	1 (2.7%)	11 (5.7%)	0.871
Rash on skin	6 (3.9%)	3 (8.1%)	9 (4.7%)	0.157
Sneezing	32 (20.6%)	4 (10.8%)	36 (18.8%)	0.878
Sore throat	88 (56.8%)	17 (45.9%)	105 (54.7%)	0.341
Tiredness	107 (69%)	21 (56.8%)	128 (66.7%)	0.397
Q.4. What are the routes of transmission for COVID-19 infection?				
Food	7 (4.5%)	2 (5.4%)	9 (4.7%)	0.510
Sexual Transmission	10 (6.45%)	3 (8.1%)	13 (6.8%)	0.404
Airborne	107 (69%)	23 (62.1%)	130 (67.7%)	0.36
Surface contact	126 (81.3%)	29 (78.4%)	158 (82.3%)	0.783
Blood	23 (14.8%)	5 (13.5%)	28 (14.6%)	0.627
Q.5. What are the preventative measures associated with COVID-19 transmission?				
Water as a disinfectant	5 (3.22%)	2 (5.4%)	7 (3.6%)	0.274
Aerosols	40 (25.8%)	13 (35.1%)	53 (27.6%)	0.289
Exposure to sunlight	37 (23.9%)	9 (24.3%)	46 (24.0%)	0.547
Gargling saltwater	4 (2.6%)	2 (5.4%)	6 (3.1%)	0.177
Alcohol consumption	1 (0.6%)	1 (2.7%)	2 (1.0%)	0.231
Inhaling disinfectant	0	1 (2.7%)	1 (0.5%)	0.120
Q.6. Is your dental practice treating all cases or only emergency cases at the moment				
All cases	151	35	186 (96.9%)	0.11
Emergency only	4	2	6 (3.1%)	0.846

Table 1 Pearson's chi-square and Fisher Exact test results for knowledge and awareness of COVID-19 by the dental profession.

Table 3. Chi-square and Fisher exact test results for attitude towards COVID-19 by gender, $p < 0.05$.

Variable	Male (n = 89)	Female (n = 103)	Total (n = 192)	P
Q.7. Do you think the preventative measures implemented are effective?				
Yes	84 (46.7%)	96 (53.3%)	180 (93.8%)	0.552
No	7 (58.3%)	5 (41.7%)	12 (6.3%)	
Q.8. Did you suspend your practice at any time during the COVID-19 outbreak?				
Yes	52 (39.1%)	81 (60.9%)	133 (69.3%)	0.020
No	37 (62.7%)	22 (37.3%)	59 (30.7%)	
Q.9. Has the number of aerosol-generating procedures been reduced since the onset of the pandemic at your dental practice?				
Yes	37 (43%)	49 (57%)	86 (44.8%)	0.404
No	52 (49.1%)	54 (50.9%)	106 (55.2%)	
Q.10. Is there enough PPE and disinfectant supplies available?				
Yes	61 (46.6%)	70 (53.4%)	131 (68.2%)	0.932
No	28 (45.9%)	33 (54.1%)	61 (31.8%)	
Q.11. Select the options which describe how you felt working during the pandemic.				
Feeling fearful	Yes: 5 (20.8%), No: 84 (50%)	Yes: 19 (79.2%), No: 84 (50%)	Yes: 24 (12.5%), No: 168 (87.5%)	0.008
Willing to help	Yes: 35 (39.3%), No: 54 (60.1%)	Yes: 27 (43.5%), No: 76 (58.5%)	Yes: 62 (32.3%), No: 130 (67.7%)	0.064
Feeling indifferent	Yes: 15 (71.4%), No: 74 (43.3%)	Yes: 6 (28.6%), No: 97 (56.7%)	Yes: 21 (10.9%), No: 171 (89.1%)	0.015
Feeling anxious	Yes: 33 (33.3%), No: 56 (60.2%)	Yes: 66 (66.7%), No: 37 (39.8%)	Yes: 99 (51.6%), No: 93 (48.4%)	<0.001
Feeling prepared	Yes: 53 (58.9%), No: 36 (35.3%)	Yes: 37 (41.1%), No: 66 (64.7%)	Yes: 90 (46.9%), No: 102 (53.1%)	0.001
Feeling reluctant	Yes: 5 (20.8%), No: 84 (50%)	Yes: 19 (79.2%), No: 84 (50%)	Yes: 24 (12.5%), No: 168 (87.5%)	0.007
Q.12. How do you feel about the protocols being implemented?				
They aid in the control of the spread of the virus	Yes: 80 (47.1%), No: 9 (40.9%)	Yes: 90 (52.9%), No: 13 (59.1%)	Yes: 170 (88.5%), No: 22 (11.5%)	0.586
Not enough is being done	Yes: 13 (59.1%), No: 76 (44.7%)	Yes: 9 (40.9%), No: 94 (55.3%)	Yes: 22 (11.5%), No: 170 (88.5%)	0.654
Q.13. What are you most worried about?				
Patient safety	Yes: 51 (47.2%), No: 38 (45.2%)	Yes: 57 (52.8%), No: 46 (54.8%)	Yes: 108 (56.2%), No: 84 (43.8%)	0.784
Family safety	Yes: 67 (45.3%), No: 22 (50%)	Yes: 81 (54.7%), No: 22 (50%)	Yes: 148 (77.1%), No: 44 (22.9%)	0.581
Personal safety	Yes: 55 (47.8%), No: 34 (44.1%)	Yes: 60 (52.1%), No: 43 (55.8%)	Yes: 115 (59.9%), No: 77 (40.1%)	0.617
Employment and income	Yes: 38 (46.9%), No: 51 (45.9%)	Yes: 43 (53.1%), No: 60 (54.1%)	Yes: 81 (42.2%), No: 111 (57.8%)	0.894
Nothing	Yes: 8 (100%), No: 81 (44%)	Yes: 0, No: 103 (56%)	Yes: 8 (4.2%), No: 184 (95.8%)	0.002

Table 3. Pearson's chi-square test and Fisher's Exact results for attitude towards COVID-19 by gender.

Discussion

Awareness

- Most dentists attended seminars to expand their knowledge about the COVID-19 virus.
- Dentists indicated that the new preventative protocols aided in controlling the spread of the virus. This was due to their awareness on the spread of the COVID-19 virus.

Knowledge

- There was disagreement regarding the most common symptoms of COVID-19.
- Most dentists correctly selected the most common symptoms, they also included some of the less common symptoms in their responses.
- There was disagreement among the participants regarding the survivability of the COVID-19 virus on inanimate objects.

Attitude and Impact

- Dentists agreed to suspend their dental practice in Trinidad and Tobago to help reduce the spread of the COVID-19 virus.
- Dentists who opted to continue working saw only emergency cases due to the mandate given by the government of Trinidad and Tobago.
- Dentists agreed to reduce the number of Aerosol Generating Procedures being conducted at their practices as mandated by the Dental Council of Trinidad and Tobago.

Conclusion

- Awareness was consistent regarding preventative measures, routes of transmission and incubation period for the SARS-CoV-2 virus.
- Campaigns and seminars are required to educate dental professionals on COVID-19.
- Rehabilitation services to allow dentists to function in their clinics should be instituted for dentists in Trinidad and Tobago

References

- World Health Organization. Coronavirus disease (COVID-19) [Internet]. www.who.int. 2020. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19#:~:text=symptoms>
- Hoyte T, Kowlessor A, Mahabir A, Khemkaran K, Jagroo P, Jahoor S. The Knowledge, Awareness, and Attitude Regarding COVID-19 among Trinidad and Tobago Dentists. A Cross-Sectional Survey. Oral. 2021; 1(3):250-260. <https://doi.org/10.3390/oral1030024>. **This journal has been published**

Acknowledgments

We would like to extend our greatest thank you to our supervisors Dr. T. Hoyte and Dr. A. Kowlessor for guiding us through this project. Additionally we would like to thank all our participants who would have answered our questionnaire being a key factor in this study.