

Knowledge of undergraduate students of the course in dentistry about the transmission of covid-19 in dental offices

Conhecimento dos estudantes de graduação do curso de odontologia sobre a transmissão da covid-19 em consultórios odontológicos

DOI:10.34117/bjdv8n4-511

Recebimento dos originais: 21/02/2022

Aceitação para publicação: 31/03/2022

Brenda Mylena de Souza

Graduada em Odontologia

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO

Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário - Araras – SP

CEP: 13607-339

E-mail: brendamylena@icloud.com

Thaís de Souza Ribeiro

Graduada em Odontologia

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO

Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário | Araras – SP

CEP: 13607-339

E-mail: thaais.ribeiro@hotmail.com

Silvia Amélia Scudeler Vedovello

Doutora

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO

Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário | Araras – SP

CEP: 13607-339

E-mail: silviavedovello@fho.edu.br

Milton Santamaria Júnior

Doutor

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO

Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário | Araras – SP

CEP: 13607-339

E-mail: santamariajr@fho.edu.br

Giovana Renata Gouvêa

Doutora

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO

Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário | Araras – SP

CEP: 13607-339

E-mail: gigouvea@fho.edu.br

Renata Siqueira Scatolin

Doutora

Instituição: Centro Universitário da Fundação Hermínio Ometto – FHO
Endereço: Av. Dr. Maximiliano Baruto, 500, Jd. Universitário | Araras – SP
CEP: 13607-339
E-mail: re_scatolin@fho.edu.br

ABSTRACT

The aim of this study was to evaluate the knowledge of dental students about the transmission of coronavirus in dental offices, and the biosafety measures that must be adopted to prevent its dissemination. An online questionnaire with 18 questions was applied to the students to collect the information. The sample was composed of 126 students of the dentistry course of public and private universities who had previous contact with clinical practice. The results revealed that 68.3% of the undergraduates were aware that dentists were among the health professionals who were at most risk for contamination, and 93.7% of them said that the procedures that generated aerosol in the dental office were those that led to the highest chances of transmission of COVID-19. The responses also showed the awareness of students relative to the need to use all the items of personal protective equipment (PPE), in which 90% of the participants considered masks, caps, gloves, facial protectors, aprons, and protective goggles to be essential for preventing propagation of the virus. When asked about hand hygiene, 92.1% of the students considered soap and water the best option. Based on assessment of patients' history (recent travels, chronic diseases and present health status), 87% reported that it was also important to obtain these items of before attending a patient. It was concluded that the undergraduates had knowledge about the transmission and biosafety methods in the dental office, related to COVID-19, which would contribute to the safety of clinical attendance in the universities.

Keywords: coronavirus, dentistry, questionnaires.

ABSTRACT

O objetivo deste estudo foi avaliar o conhecimento dos estudantes de odontologia sobre a transmissão do coronavírus em consultórios odontológicos, e as medidas de biossegurança que devem ser adotadas para evitar sua disseminação. Um questionário online com 18 perguntas foi aplicado aos estudantes para coletar as informações. A amostra foi composta por 126 estudantes do curso de odontologia de universidades públicas e privadas que tiveram contato prévio com a prática clínica. Os resultados revelaram que 68,3% dos graduados estavam cientes de que os dentistas estavam entre os profissionais de saúde com maior risco de contaminação, e 93,7% deles disseram que os procedimentos que geravam aerossóis no consultório odontológico eram os que levavam às maiores chances de transmissão da COVID-19. As respostas também mostraram a consciência dos estudantes quanto à necessidade de utilizar todos os itens de equipamentos de proteção individual (EPI), nos quais 90% dos participantes consideraram máscaras, bonés, luvas, protetores faciais, aventais e óculos de proteção como essenciais para prevenir a propagação do vírus. Quando perguntados sobre higiene das mãos, 92,1% dos estudantes consideraram o sabonete e a água a melhor opção. Com base na avaliação do histórico dos pacientes (viagens recentes, doenças crônicas e estado de saúde atual), 87% relataram que também era importante obter estes itens antes de atender um paciente. Concluiu-se que os estudantes universitários tinham conhecimento sobre os métodos de transmissão e biossegurança no consultório odontológico,

relacionados à COVID-19, o que contribuiria para a segurança do atendimento clínico nas universidades.

Palavras-chave: coronavírus, odontologia, questionários.

1 INTRODUCTION

On December 12 2019, an announcement was made in Wuhan, China, of a set of cases of pneumonia caused by a recently-identified coronavirus, denominated Coronavirus of 2019 (SARS-CoV-2) (MENG; HUA; BIAN, 2020; PENG *et al.*, 2020). This infectious disease developed rapidly all over the world, resulting in a pandemic, as declared by the World Health Organization (WHO) (PENG *et al.*, 2020; ZHANG; JIANG, 2020).

Part of the infected individuals were asymptomatic and other developed symptoms in a light manner, however, in more severe cases, infection could cause pneumonia or respiratory difficulties, leading to death (BRAZIL, 2020). The clinical characteristics of coronavirus 2019 (COVID-19) could include fever, coughing, and shortness of breath. These initial symptoms are frequently similar to those of influenza or the common cold, which makes its primary diagnosis difficult, without performing complementary exams (BRAZIL, 2020).

The organizations related to health have practical biosafety guidance for the population and health professionals to control the propagation of COVID-19, with hand hygiene and the use of masks being measures recommended for reducing the risk of transmission (BRASIL, 2020; GREENHALGH *et al.*, 2020; CHAABNA *et al.*, 2021; MENEZES; MIDORY; PAPA, 2021). Within dental offices, we know that these actions have been the common routine among dentists, together with the use of gloves, aprons and protective goggles. However, to increase prevention during attendances, new preventive measures were adopted, among them taking patients temperature with an infrared thermometer, use of mask N95 and face shield, use of sanitizing mat at the dental office entrance, for the purpose of cleaning shoes, filling out of an investigative questionnaire, and disinfecting the floor and items of equipment that cannot be sterilized, after each attendance (CASTILLO-PEDRAZA; SERPA-ROMERO; WILCHES-VISBAL, 2020; PENG *et al.*, 2020; SODRE *et al.*, 2021).

The most common transmission of this disease occurs as a result of secretions arising from coughing, sneezing, saliva and inhaling droplets emitted by contaminated

patients, followed by contact with the oral, nasal, ocular pathways and the mucous membrane (SABINO-SILVA; JARDIM; SIQUEIRA, 2020; TUÑAS *et al.*, 2020). Therefore, during a dental attendance, when procedures are performed directly in the oral cavity, the biosafety measures and care taken with the practice are fundamental for preventing the transmission of this disease, so that both patients and professional will be protected and safe (OLIVEIRA *et al.*, 2020; PENG *et al.*, 2020; ZHANG; JIANG, 2020).

Having knowledge of the high risk to which dental students and patients who use this service are exposed, the aim of this study was to assess the degree of knowledge of dental students about the biosafety measures that must be adopted to prevent transmission and contamination by the coronavirus.

2 MATERIALS AND METHODS

2.1 ETHICAL CONSIDERATIONS

This study was conducted in compliance with the requisites of the Declaration of Helsinki and was approved by the Ethics Committee on Research with Human Beings of the University Center of the Hermínio Ometto Foundation (FHO), CAAE: 36784320.2.0000.5385. The individuals who agreed to participate in the study signed the Term of Free and Informed Consent (TFIC) and received all the explanations about the research.

2.2 STUDY DESIGN, CHARACTERISTICS AND SAMPLE SELECTION

This was a descriptive study that was conducted throughout the second semester of the year 2020, with students of the Dentistry Course of public and private university, in the full time and nocturnal periods, who had previously contact with clinical practice. Data was collected in a single stage, with the help of an online questionnaire, by means of the Google Forms platform.

2.3 INCLUSION AND EXCLUSION CRITERIA

As criteria for inclusion in the study, the volunteers had to be students in a dentistry course, enrolled in public or private universities, and who had previously performed clinical attendance. As exclusion criteria, the responses excluded were those of students enrolled in other courses or who were in the first year of the dentistry course of public and private universities, and those who had not yet had any contact with clinical practice.

2.4 INSTRUMENT USED

The questionnaire applied was adapted from the study of Teja, Vasundhara e Sriram (2020), which considered the knowledge, attitude and practice of dentists in the prevention of transmission of the disease by the new coronavirus (COVID-19). The instrument consisted of 18 questions that approached topics such as: sources of information about the disease, risk to professionals in the field of health, means of protection to prevent transmission and contamination, dental procedures that offered greater risk of transmission, and role of dentists in the face of this situation.

3 RESULTS

Data were collected in the period from September 2020 to October 2020. The sample was composed of 126 undergraduates of the Dentistry course, enrolled in the last years of graduation, at private and public universities, of both sexes, with an age ranging between 19 and 37 years (Table 1).

Table 1 - Frequency of students and their distribution according to sex, age group, year of graduation and type of University. N= 126.

Variables	N (%)
Sex	
Male	37 (29.36%)
Female	89 (70.64%)
Age Group	
18- 21	36 (28.57%)
22- 25	69 (54.76%)
>25	21 (16.67%)
Which year in the Graduation Course	
Third	30 (23.81%)
Fourth	73 (57.94%)
Fifth	23 (18.25%)
University	
Public	35 (27.78%)
Private:	91 (72.22%)

The volunteers were contacted by means of an online questionnaire, in which they responded to 18 questions about knowledge related to contamination by COVI-19 (Table 2).

Among the volunteers of the research, 91.3%, said they knew that COVID-19 was a pandemic and that this could be controllable if the following sanitizing methods and appropriate infection control were followed, and 8.7% were in doubt about the subject. When they were questioned about the risk face by health professionals,, 68.3% of the participants considered that dentists were at greater risk for contamination, followed by nurses (24.6%), paramedics (4.8%) and other health professionals (2.4%).

Sites of Brazilian health authorities and their websites were shown to be the most reliable sources of information by the participants, for obtaining information about COVID-19 (87.3%), however, some reported searching for information in Google (8,7%), social media (2.4%) and Youtube (1.6%). Approximately 51.6% of the Dentistry students affirmed that the sources of information available about COVID-19 could not be sufficient to prevent transmission of the disease, and only 12.7% of the participants considered them sufficient. However, 35.7% were certain that the sources of information were not sufficient. When asked whether the Brazilian public health authorities were capable of controlling the propagation of infection, and whether it would be better to follow their instructions to prevent transmission, 46.03% said no, 34.92% were not sure and 19.05% said yes.

The volunteers were asked which history of the patient, within the scope of Dentistry, they considered most important before proceeding with treatment, and 87% reported that information about the history of recent travels, chronic diseases, fever and feeling unwell were all important, 12.7% considered only recent fever and feeling unwell were relevant types of information.

Relative to individual protection equipment, 90% of the participants considered face masks, caps, gloves, facial shields, white (lab) coats, aprons, protective goggles and disinfectant and sanitizing solutions were essential items of individual protective equipment for the prevention of propagation of the virus. However, approximately 59.5% of the participants reported that they were suffering from shortage of oral masks and gloves (10%). When asked about the scarcity of these types of equipment, 43.7% of the participants reported that the scarcity was related to the increase in use by the population in general, and 42.1% said it was due to the higher cost.

Among the results collected, 88.1% of the participants said they knew which the preventive measures were for controlling and minimizing infection in dental services. When asked about knowledge of the correct procedure for discarding material and objects of individual protection, 84.1% said that they knew about these procedures. In the case

of hand-washing, when asked about the best option for performing this procedure, 92,1% of the participants considered soap and water the best option, 4.8% considered 70% alcohol, and only 3.2% considered chlorhexidine gluconate.

Restorative procedures and any other procedures that produced aerosols were listed by 93.7% of the volunteers as being those that have the highest chances of transmitting Covid-19, with oral prophylaxis being the type that demanded most attention when being performed (58.7%). Procedures such as endodontic emergencies, preparations for crowns, and oral surgeries, were also cited, but with rates below 14%.

In total 113 Dental students who participated in the research (89.7%), considered that dentists played an important role in preventing the propagation of the COVID-19 pandemic, and 54% considered that it was more important to educate patients about the present situation in order to prevent transmission of the disease, than to perform non-emergency procedures. Providing only necessary emergency attendance in the present situation and educate patients about appropriate sources of information were cited by approximately 20% of the students as being roles played by dentists in the present situation for preventing transmission of the disease.

When asked about the type of guidance the participant would provide relative to the present situation, 60%, opted for not getting into panic and following the recommendations of the health authorities and those that guide them; 33.3% opted for postponing all non-emergency procedures until the situation was under control, and 4.8% thought that all clinical procedures should be performed. Of the participants, 97.6% considered that programs were necessary to raise awareness among the dental team and public about the importance of various measures in preventing the transmission of COVID-19, but 49.2% considered this must only be done by appropriate and recognized sources.

4 DISCUSSION

The aim of this study was to assess the degree of knowledge of dentistry students about the biosafety measures that must be adopted to prevent the transmission of and contamination by coronavirus.

The pandemic caused by the Coronavirus expanded throughout the world, generating extreme concern in the population. As some localizations are at serious risks of contamination by viruses, among them. Dental offices (VICENTE *et al.*, 2020), it is extremely important for undergraduates of dentistry courses to have knowledge about the

transmission of Covid-19 and of the biosafety measures that must be implemented to prevent its propagation within the clinical environment.

Dentists are among the health professionals at greatest risk for the transmission and contraction of Coronavirus due to the significant contact with aerosols produced during the procedures (ODEH *et al.*, 2020; SODRÉ *et al.*, 2021). They are at high risk of infection by SARS-COV-2 because they are unable to respect and keep the interpersonal distance of over one meter from the patient, and because they come into intimate contact with saliva, blood and other bodily fluids during an attendance (SPAGNUOLO *et al.*, 2020).

Among the procedures performed by dentists in the dental office, restorations and other procedures that produce aerosols, such as for example, prophylaxis, were listed by the research volunteers as being those that have the greatest chances of transmitting COVID-19. Dental Instruments such as ultrasonic scrapers, rotary instruments (such as the handpiece, high speed pen) and triple syringe may lead to secretions, saliva or blood generate a source of emission of microorganisms with the production of contaminated aerosols, thus generating risk of contagion (SILES-GARCIA *et al.*, 2020; BANUSHALI *et al.*, 2020; CABRERA-TASAYCO *et al.*, 2020; FINI, 2020; MENG; HUA; BIAN, 2020). As the respiratory droplets themselves are also transmission pathways of many types of viruses, the use of high power suction devices, rubber dams, prioritize the use of manual instruments and use of oral mouth washes with oxidative capacity before beginning with the procedure, have also been measures recommended in dentistry for controlling the transmission and contamination by SARS-COV-2 (SILES-GARCIA *et al.*, 2020; BANUSHALI *et al.*, 2020; CABRERA-TASAYCO *et al.*, 2020; FINI, 2020; MENG; HUA; BIAN, 2020).

Relative to items of individual protection equipment, almost all the participants considered oral masks, caps, gloves, facial shields, aprons, protective goggles and disinfectant and sanitizing solutions to be essential individual protection equipment for the prevention of propagation of the virus. When combined with adequate cleaning procedures and the correct use of PPE's, considerable reduction could be obtained in the possibility of contagion by SARS-COV-2, during dental attendance (AMATO *et al.*, 2020; MENEZES; MIDORY; PAPA, 2021). In addition to the correct use of individual protection equipment, the procedure for discarding these items of equipment is extremely important, considering that these items could be contaminated. The major portion of the students said that they had knowledge about the correct procedure for discarding the

materials and objects of individual protection. Amato *et al.* (2020), mentioned that it is mandatory for the Dentist to discard all the items of IPE used in special double-layered garbage bags, sprayed with a 0.5% hypochlorite solution, sealed with a knot and temporarily stored in a closed receptacles that can be opened by means of a pedal. Immediately after the garbage has been bagged, it will be finally discarded in compliance with all the guidelines on hospital garbage disposal established.

When asked about hand washing, the large majority of participants considered soap and water to be the best option. According to the World Health Organization (WHO), to perform hand washing, antiseptic rubbing with alcohol-containing preparations or soap and water must be performed, as both products have the same efficacy. In the event that the hands are clearly soiled with blood and debris, liquid, soap and water must be used. Otherwise, rubbing with alcohol is recommended. Before and after touching a patient, and the surroundings of a patient, hand hygiene must be performed (FINI, 2020).

Although the students showed knowledge about the due protection, Zolotov *et al.* (2020) and Nguyen *et al.* (2020) in their studies, showed that the majority of students felt afraid and insecure with regard to COVID 19, the highest level came from the female sex, associated with the elevated number of cases.

Having knowledge of the patient's history before proceeding with the treatment, such as the history of traveling, feeling ill, chronic disease, fever, is also necessary so that there will be no occurrence of propagation within the dental office. Cautious pre-triage must be performed before attendances, by contacting the patient by means of a telephone consultation and applying the COVID-19 questionnaire that considers the most frequent symptoms of the infection by SARS-COV-2. Should the results be completely negative, the patients could come to the dental office for his/her due treatment. His/her temperature will be taken as soon as he/she arrives, at all times wearing a mask, without companions whenever possible and also complying with the protocols of hand washing and disinfection of the feet (AMATO *et al.*, 2020; BANUSHALI *et al.*, 2020; CABRERA-TASAYCO *et al.*, 2020; MENEZES; MIDORY; PAPA, 2021).

It is well known that the dentist plays an important role in the control of disseminating COVID-19, however, it has been noted that the present situation demands more programs of raising the awareness of the population in general. The undergraduates reported that the sources of information available about COVID-19 have not been

sufficient to prevent the transmission of the disease, but this must always be done by appropriate and recognized sources.

This research showed that the undergraduates in dentistry had knowledge about the new virus and reported that they believed it could be controlled if the sanitizing methods and appropriate infection control were followed both within and outside of the dental office environment. They also showed that they were aware that they were part of the group at greatest risk for contamination.

5 CONCLUSION

The dentistry undergraduates showed that they had knowledge about the transmission and biosafety methods in the dental office, relative to COVID-19, which will contribute to the safety of clinical attendances at the universities.

REFERENCES

AMATO, A; CAGGIANO, M.; AMATO, M.; MOCCIA, G.; CAPUNZO, M.; DE CARO, F. Infection control in dental practice during the COVID-19 pandemic. **International Journal of Environmental Research and Public Health**, v. 17, n. 13, p. 4769, 2020.

BHANUSHALI, P.; KATGE, F.; DESHPANDE, S.; CHIMATA, V. K.; SHETTY, S.; PRADHAN, D. COVID-19: Changing Trends and Its Impact on Future of Dentistry. **International Journal of Dentistry**. v. 29, 2020:8817424, 2020.

BRASIL. MINISTÉRIO DA SAÚDE. (ed.). Sobre a doença: o que é covid-19 e quais são os sintomas. 2020. Disponível em: <https://coronavirus.saude.gov.br/index.php/sobre-a-doenca>. Acesso em: 10 ago. 2020.

CABRERA-TASAYCO FDP, RIVERA-CARHUAVILCA JM, ATOCHE-SOCOLA KJ, PEÑA-SOTO C, ARRIOLA-GUILLÉN LE. Biosafety Measures at the Dental Office After the Appearance of COVID-19: A Systematic Review. **Disaster Medicine and Public Health Preparedness**, p. 1-5, 2020.

CASTILLO-PEDRAZA, M. C.; SERPA-ROMERO, X. Z.; WILCHES-VISBAL, J. H. La odontología frente a la pandemia por Covid-19: medidas y prácticas a implementar. **Revista Española de Salud Pública**, v. 94, p. e1-e4, 2020.

CHAABNA, K.; DORAISWAMY, S.; MAMTANI, R.; CHEEMA, S. Facemask use in community settings to prevent respiratory infection transmission: A rapid review and meta-analysis. **International Journal of Infectious Diseases**, v. 104, p. 198-206, 2021.

FINI, M. B. Oral saliva and COVID-19. **Oral Oncology**, Sep;108:104821, 2020.

FINI, M. B. What dentists need to know about COVID-19. **Oral Oncology**, Jun;105:104741, 2020.

GREENHALGH, T.; SCHMID, M. B.; CZYPIONKA, T.; BASSLER, D.; GRUER, L. Face masks for the public during the covid-19 crisis. **British Medical Journal**, 369:m1435. 2020.

MENEZES, A.R.; MIDORY, M. S. S.; PAPA, L. P. Covid- 19: importância do manejo clínico do cirurgião-dentista. **Brazilian Journal of Development**, v.7, n.1, p. 3729-3736, 2020.

MENG, L.; HUA, F.; BIAN, Z. Coronavirus Disease 2019 (COVID-19): Emerging and Future Challenges for Dental and Oral Medicine. **Journal of Dental Research**, v. 99, n. 5, p. 481-487, 2020.

NGUYEN, H. T.; DO, B.N.; PHAM, K. M.; KIM, G.B.; DAM, H. T. B.; NGUYEN, T. T.; NGUYEN, T. T. P.; NGUYEN, Y. H.; SORENSEN, K.; PLEASANT, A.; DUONG, T. V. Fear of COVID-19 Scale-Associations of Its Scores with Health Literacy and Health-Related Behaviors among Medical Students. **International Journal of Environmental Research and Public Health** v. 17, n. 11, p. 4164, 2020.

ODEH, N. D.; BABKAIR, H.; ABU-HAMMAD, S.; BORZANGY, S.; ABU-HAMMAD, A.; ABU-HAMMAD, O. COVID-19: Present and Future Challenges for Dental Practice. **International Journal of Environmental Research and Public Health**, v. 17, n. 39, p. 3151, 2020.

OLIVEIRA, J. J. M.; SOARES, K. M.; ANDRADE, K. S.; FARIAS, M. F.; ROMÃO, T. C. M.; PINHEIRO, R. C. Q.; FERREIRA, A. F. M.; CAMPOS, F. A. T. O impacto do coronavírus (covid-19) na prática odontológica: desafios e métodos de prevenção. **Revista Eletrônica Acervo Saúde**, v. 46, e3487, 2020.

PENG, X.; XU, X.; LI, Y.; CHENG, L.; ZHOU, X.; REN, B. Transmission routes of n2019-nCoV and controls in dental practice. **International Journal of Oral Science**, v. 12, n. 1, p. 9, 2020.

SABINO-SILVA, R; JARDIM, A. C. G.; SIQUEIRA, W. L. Coronavirus COVID-19 impacts to dentistry and potential salivary diagnosis. **Clinical Oral Investigation**, v.24, n. 4, p. 1619-1621, 2020.

SILES-GARCIA, A. A.; ALZAMORA-CEPEDA, A. G.; ATOCHE-SOCOLA, K. J.; PEÑA-SOTO, C.; ARRIOLA-GUILLÉN, L. E. Biosafety for Dental Patients During Dentistry Care After COVID-19: A Review of the Literature. **Disaster Medicine and Public Health Preparedness**, v. 14, p. 1-6, 2020.

SODRÉ, A K. S.; PINHEIRO, M. J. F.; SILVA, P. C. P.; MARQUES, D. M. C.; CARVALHO, T. Q. A. COVID-19 e mudanças na prática odontológica. **Revista Brasileira de Revisão de Saúde**, v.4, n.2, p. 8763-8772, 2021.

SPAGNUOLO. G.; DE VITO, D.; RENGO, S.; TATULLO, M. COVID-19 Outbreak: An Overview on Dentistry. **International Journal of Environmental Research and Public Health**, v. 17, n. 6, p. 2094, 2020.

TEJA, K. V.; VASUNDHARA, K. A.; SRIRAM, G. Knowledge, Awareness, and Practice of Dentists in Preventing-Novel Corona Virus (COVID-19) Transmission-A Questionnaire Based Cross-Sectional Survey. **Brazilian Dental Science**, v. 23, n. 2, p. 1-9, 2020.

TUÑAS, I. T. C.; DA SILVA, E. T.; SANTIAGO, S. B. S; MAIA, K. D.; SILVA-JUNIOR, G. O. Doença pelo Coronavírus 2019 (COVID-19): Uma abordagem preventiva para Odontologia. **Revista Brasileira de Odontologia**, v. 77, e1766, 2020.

VICENTE, K. M. D. S.; SILVA, B. M. D.; BARBOSA, D. D. N.; PINHEIRO, J. C. P.; LEITE, R. B. Diretrizes de biossegurança para o atendimento odontológico durante a pandemia do COVID-19: revisão de literatura. **Revista Odontológica de Araçatuba**, v. 41, n. 3, p. 29-32, 2020.

ZHANG, W., JIANG, X. Measures and suggestions for the prevention and control of the novel Coronavirus in dental institutions. **Frontiers of Oral and Maxillofacial Medicine**, v. 2, p. 4, 2020.

ZOLOTOV, Y.; REZNIK, A.; BENDER, S.; ISRALOWITZ, R. COVID-19 Fear, mental health, and substance use among Israeli University students. **International Journal of Mental Health and Addiction**, p. 1-7, 2020.

Table 2. Dental students' answers to the questionnaire. N=126.

1. Do you know that COVID-19 is pandemic and spread is mostly controllable if appropriate sanitisation and infection control is followed in dental practice?	yes <u>91,3%</u>	no <u>0,0%</u>	may be <u>8,7%</u>	
2. According to you, which health care professionals are at higher risk of novel coronavirus?	dental professionals <u>68,3%</u>	paramedics <u>4,8%</u>	nurses <u>24,6%</u>	other health care professionals <u>2,4%</u>
3. Which source of information do you feel is reliable on obtaining knowledge about COVID-19?	Google <u>8,7%</u>	You-Tube <u>1,6%</u>	social media <u>2,4%</u>	national health authorities & who website <u>87,3%</u>
4. Do you feel the available source of information on COVID-19 is sufficient to prevent the disease transmission?	yes <u>12,7%</u>	no <u>35,7%</u>	might not be sufficient <u>51,6%</u>	
5. Do you feel the national health authorities are able to control the spread of infection & better to follow their instructions to prevent transmission?	yes <u>19,05%</u>	no <u>46,03%</u>	not sure <u>34,92%</u>	
6. Which history of the patient you feel is more important, and you are concentrating the most, before proceeding to a dental treatment?	travel history <u>0,0%</u>	history of chronic illness <u>0,8%</u>	history of recent fever, malaise or susceptible symptoms <u>12,7%</u>	all the above <u>87%</u>

7. Which personal protective equipment you feel is more important to protect yourself in preventing transmission?

mouth masks and head caps <u>1,6%</u>	gloves, face shields, overcoats, gowns and eye wear <u>7,1%</u>	disinfectant solutions, sanitizers <u>0,8%</u>	all the above <u>90%</u>
---	---	--	------------------------------------

8. Do you face scarcity of any personal protective equipment? If yes, then which one do you feel is scarcer in the present situation?

mouth masks <u>59,5%</u>	gloves <u>10%</u>	other equipment's <u>4,0%</u>	i don't feel any scarcity <u>27%</u>
------------------------------------	-----------------------------	---	--

9. What is the reason for the scarcity of this personal protective equipment's?

lack of availability <u>4,8%</u>	higher cost <u>42,1%</u>	increased usage by general population (especially mouth masks) <u>43,7%</u>	no reason for scarcity <u>9,5%</u>
--	------------------------------------	---	--

10. Which dental treatment procedures do you feel has more chances to transmit covid-19?

restorative procedures or any procedures producing aerosol <u>93,7%</u>	surgical procedures <u>4,8%</u>	orthodontic procedures <u>0,0%</u>	prosthodontics procedures <u>1,6%</u>	other minor dental treatment procedures <u>0,0%</u>
---	---	--	---	---

11. In the current scenario what treatment procedures you are practicing the most keeping in mind about COVID-19 transmission?

dental extractions <u>1,6%</u>	emergency endodontic therapy <u>13,5%</u>	oral surgeries <u>9,5%</u>	oral prophylaxis <u>58,7%</u>	crown preparati ^o s <u>0,3%</u>	other dental treatments not listed <u>6,3%</u>
--	---	--------------------------------------	---	--	--

12. Do you feel dentist has a major role in educating the patients about the pandemic spread of COVID-19?

yes **89,7%** no **0,8%** not much **9,5%**

13. What do you feel is the role of dentist in the current situation in preventing the disease transmission?

educating patients on current situation to prevent disease transmission is more important than performing non-emergency procedures <u>54,0%</u>	importance on educating patients about appropriate sources of information <u>18,3%</u>	performing all dental procedures including emergency and elective <u>5,6%</u>	delivering only emergency care which is required for the current situation <u>20,6%</u>	i don't feel we do have a role in preventing the COVID-19 transmission <u>1,6%</u>
---	--	---	---	--

14. What is your conclusive remark on present situation?

don't be panic and follow national health authorities & who guidelines <u>60,3%</u>	perform all clinical procedures <u>4,8%</u>	don't practice until everything comes under control <u>1,6%</u>	postpone all non-emergency procedures until situation is under control <u>33,3%</u>
---	---	---	---

15. Do you feel that in the present situation we require more awareness programmes among dental fraternity and in the public on importance of various measures in preventing COVID-19 transmission?

definitely required <u>48,4%</u>	not required <u>2,4%</u>	required but through appropriate & recognised sources <u>49,2%</u>
--	------------------------------------	--

16. Do you know a preventive measures to control and minimize prevention in dental services?

yes **88,1%** no **0,8%** not much **11,1%**

17. Do you know the proper disposal of personal protective materials and objects?

yes	no	not much
<u>84,1%</u>	<u>0,8%</u>	<u>15,1%</u>

18. Correct hand washing is a fundamental requirement in preventing the transmission of COVID-19. Knowing this, what is the best option to perform it??

water and soap	Chlorhexidine Gluconate	Alcohol (70%)	Sodium hypochlorite
<u>92,1%</u>	<u>3,2%</u>	<u>4,8%</u>	<u>0,0%</u>