

# COVID-19 and assistance to people with disabilities and special groups in dental school clinic

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## ABSTRACT

The aim of the current article is to address the guidelines and suggestions for dental care of patients with special needs (people with disabilities) and elderly in undergraduate dental clinics by taking into account the impacts caused by the COVID-19 pandemic. Guidelines for the Special Care Dentistry clinical approach were developed based on the publication of national and international guidelines on biosafety, oral health care, and dental procedures. Knowledge and information promotion, and the necessary adaptations in teaching are expected to allow better assistance and educational contribution to undergraduate students, in addition to performing practical activities in a safer way in college environment.

**Descriptors:** Coronavirus Infections. Disabled People. Geriatric Dentistry. Education, Dental. Staff Development.

## 1 INTRODUCTION

Training provided to dental surgeons shows gaps in the qualification of undergraduates at the time to act in clinical practices when they face likely adversities and different conditions concerning providing assistance to people with disabilities and to special groups<sup>1,2</sup>. Based on a

generalist, reflective, human, empathic, and interdisciplinary training focused on patient assessment in a comprehensive and individualized way, teaching activities should include guidelines and training for the practice of Special Care Dentistry (SCD), which includes assisting people with disabilities, special groups,

and elderlies (Geriatric dentistry)<sup>1,3-5</sup>.

SCD remains marginalized and inaccessible, mainly due to the lack of trained professionals and educational strategies that acknowledge such a type of clinical practice in undergraduate courses. This situation was worsened by the pandemic caused by the coronavirus disease (COVID-19) outbreak<sup>6,7</sup>.

The aims of the current article are to present the already adopted guidelines and practical guidelines developed by the teaching staff of the mandatory discipline “Integrated Clinical Practices for People with Disabilities and Special Groups (Dentistry Clinic for Special Care Patients)” of the Dentistry course of Brasilia Catholic University (UCB). This discipline aims at how to provide safe outpatient care, in addition, to practice preventive measures.

## 2 EXPERIENCE REPORT

The pedagogical project of UCB Dentistry undergraduate course is based on the performance of a different pedagogical model aimed at providing a comprehensive education process adjusted to the needs of Brazilian society, mainly when it comes to the health system, by prioritizing individual and community health promotion initiatives<sup>1</sup>.

The interdisciplinary perception about disability and/or special needs provides students and teaching staff with a learning process focused on human, affective, emotional, and biological relationships, which are associated with social, cultural, family, religious, and community conditions<sup>1</sup>.

Educational activities focusing health care are addressed since the first year of the dentistry course. Optional subjects, such as Libras (Brazilian language of signs), and compulsory subjects, such as clinical practice, aimed people with disabilities and special groups. They are part of the Dentistry undergraduate course discipline

matrix<sup>8</sup>.

### **Integrated clinical practices for people with disabilities and special groups - Special Care Dentistry**

Compulsory practical subjects (combined with theoretical, demonstrative, and scientific activities) are organized within 80-hour activity. They are managed by 8 teachers and 30 pairs of students per term to provide them with the experience of other students and professors about practices involving the educational, social, ethical and clinical aspects of taking care of patients with special needs and elderlies by always respecting the limitations and specificities of each individual<sup>1,6</sup>.

Students and professors are subjected to a common integration and learning process under the most diverse conditions concerning the difficulties, adversities, adaptations, and clinical management of patients. The idea is to allow greater participation, decision-making and behavior sharing, in addition to encourage contributions to marginalized groups with little financial resources.

The proximity between students and people with disabilities and/or to the ones belonging to a group of special needs, family and professors creates moments of affection and care, which are expressed in hugs, handshakes, kisses, and in interactive and clinical activities that have positive influence on the correct patient management and professional-patient adaptation. Based on the new reality of dental practice after the COVID-19 outbreak, it has not yet been established an effective way to take care of these patients, as well as the correct logistical and temporal structure to provide dental care at college environment<sup>6,7,9</sup>.

Therefore, brief guidelines on how to proceed when facing the new teaching and dental practices scenario have been developed. Professors in charge if the herein addressed subject held online meetings to discuss and

elaborate the best strategies and to search the national and international literature for updated information about general dental practice and for information related to patients with disabilities and special groups during the pandemic. The main relevant topics to be addressed in practical activities were organized into topics, in order to make students, patients, family members, faculty, and auxiliary staff's understanding easier. The main process guides, manuals, and scientific articles published in Portuguese and English by national competent agencies and internationally acknowledged entities in dental care, in general, and in care provided to patients with special needs and elderlies, in addition to articles published in national journals concerning teaching and educational practices in Dentistry, were herein assessed.

Nineteen documents were selected, which were seen as the most relevant to clinical practice and care provided to patients with special needs in different life cycles associated with the COVID-19 pandemic. Professors in charge of the herein addressed subject shared the writing of the current articles by making suggestions, critical analyses, and modifications in order to develop these guidelines.

### **The association between COVID-19 and dental practice teaching focused on special groups**

The COVID-19 pandemic has straight interference with educational services, mainly with practical dental care activities in public and private institutions. The social distance only allowed remote activities in teaching and online study groups, and it brought along the need of the logistical restructuring and planning of future activities<sup>6,11</sup>.

Individuals infected with the coronavirus have symptoms such as cough, fever, and headaches, but they can also be asymptomatic<sup>9,10</sup>. The dental practice faces high risk of cross-

infection, which is worsened by the aerosols used in some procedures and the high viral load found in the upper airways of infected patients<sup>10-12</sup>.

The UCB Dental School Clinic assists people with disabilities and special groups in different life cycles (children, adolescents, adults, and elderlies), and provides educational oral health support for family members and caregivers. The clinical activities carried out by the students focus generalist care, which involves all regulated areas in professional training.

Therefore, the guidelines and protocols adopted to provide dental care to patients with disabilities or special needs are based on decisions made by other fields of the course, such as Health Education, Collective Health, Ethical and Legal Aspects of Dental Practice, Periodontics, Dentistry, Dental Prosthesis, Stomatology, Oral Surgery, Endodontics, Pediatric Dentistry, Geriatric Dentistry and Supervised Internships in Dentistry (Integrated Clinical Practice).

The assisted patients are people with special needs and they are at different age groups (from infancy to old ages), which are more vulnerable, fragile, and susceptible to contamination. In addition to the correct compliance with the biosafety rules set for any clinical care, Special Care Dentistry requires different attention, educational and preventive behaviors, mainly when it comes to the performance of minimally invasive dental procedures throughout the pandemic in order to avoid their contamination and their family members. It is important emphasizing that health care and biosafety standards<sup>11,13</sup> should be headed towards all those involved in special dental care.

However, some aspects, mainly regarding the relationship with and proximity to special patients, will represent new

challenges to be faced together within the new professional and educational performance (professor-student) context during, and after, the pandemic. The idea is to slowly and safely develop the best strategies for clinical management, professional adaptation, and dental practices due to the several possibilities of professional performance, as well as to different personalities and physical, mental, and systemic conditions of these patients. This process will be based on patients' needs through professor-student training and interaction.

It is a unique renewal moment in dental activities dedicated to patients with disabilities and special needs, and to their

families. Warm welcome and closeness in affective bonds in special dental care must wait for a better time for personal contact.

Specific changes are required to safely carry out educational and clinical activities for patients with disabilities and special needs. It directly contributes to promote health and quality of life through training and experiences acquired at the university.

### **Guidelines for reception and waiting room procedures in Special Care Dentistry**

Charts 1 and 2 show the guidelines for prior patient screening and scheduling<sup>6,7,12-15</sup> for and reception and waiting room,<sup>6-8,13,14,16</sup> respectively.

Chart 1. Guidelines for prior patient screening and scheduling

Prior screening of the patient and of his family (phone call or WhatsApp message) <sup>6,14</sup>
Appointments with defined and spaced schedules to ensure adequate distancing <sup>7,11,13</sup>
Previous orientation to the person responsible for the patient - only one companion (when possible) -, on the day of appointment <sup>12-15</sup>

Chart 2. Guidelines for reception and waiting room procedures

Repetition of prior screening, contemplating the patient and family <sup>6,8,14</sup>
Maintaining the distance between seats for patients in the waiting room <sup>8,13,14</sup>
Orientation for patients and for their companions on protective measures and respiratory hygiene after coughing <sup>6,7,14,16</sup>
Ensure that the environment has adequate ventilation, that doors and windows remain opened <sup>13,14</sup>
Orientation to the patient and caregivers to wash their hands in water and liquid soap or in 70% alcohol hand sanitizer (glycerin), as soon as they arrive <sup>6,7,8,14,16</sup>
Instruct the companion and the patient to avoid walking around in the waiting room and to only touch essential <sup>6,8,13</sup>
Avoid physical contact when receiving the patient with special needs and family, but without the loss of sympathy, empathy, and humanity in contact with the special patient <sup>6,7,13,14</sup>
Mandatory use of masks by the patient and their caregiver.
* using masks will not be mandatory for patients who do not have a cognitive and/or collaborative profile for the correct understanding, mouth breathers, and drooling patients associated with the drool picture <sup>6,14</sup>
Guidance to caregivers on using disposable tissues for drying patients' saliva of the patient with special needs (if necessary) and to carry out hand hygiene always after physical contact, according to standards stipulated by the course biosafety activities (correct washing of hands with soap and water; using 70% alcohol) <sup>6,8,14,16</sup>

## **Guidelines and directions throughout the COVID-19 pandemic**

Chart 3 shows the guidelines for dental care

with people with disabilities and special groups in different life cycles during the COVID-19 pandemic period.

### **Chart 3. Guidelines for dental care with people with disabilities and special groups**

Use of professors and teachers' photographs in disposable lab coats to have professionals acknowledged by patients with special needs and family members <sup>7,10,11</sup>
Welcome patients with special needs without medical protective equipment and greet him, maintaining the minimum distance of 2 meters and avoiding any physical contact <sup>7,10,11</sup>
Conducting frank and friendly dialogue with patients with special need and caregivers, to condition them to changes concerning biosafety, as well as the new professional relationship profile (student/professor) during clinical activities <sup>7,10,11</sup>
Reinforce communication with patient and guardian, after clinical care and correct removal of medical protective equipment by the student or professor <sup>7,10,11</sup>
Confirm that the patient can be subjected to the indicated dental treatment and indicate to the caregiver the area where personal objects should be left or removed <sup>7,10,11</sup>
Encourage the use of digital technology for sending pictures, explanatory videos, or making video calls <sup>7,10,11</sup>
Inform caregivers and patients about any occurred and required change in dental appointment through WhatsApp message in the form of a list of guidelines, an explanatory folder or even through informational videos <sup>7,10,11</sup>
The presence of the caregiver or family member in the clinical care whenever necessary will be conditioned to using medical protective equipment (a cap and a mask). The caregiver or family member must remain at safe distance and must not use the cell phone <sup>7,10,11</sup>

## **Recommendations for correct dental practice during the COVID-19 pandemic**

Given that dental surgeons, undergraduate students, and professors who perform activities in integrated clinics are among the professionals facing high risk of contamination by the virus causing the COVID-19. Only essential procedures and the ones considered urgent and emergency should be carried out during the pandemic<sup>9,10,13</sup>.

Hemorrhage, diffuse intraoral or extraoral cellulitis, and trauma with the potential for compromising airways are some dental emergencies. These cases will be referred to hospital care. Among dental emergencies one finds pain of endodontic (pulpitis, abscesses), traumatic

(dental trauma), periodontal (gingival or periodontal abscesses, ulcerative gingivitis, and periodontitis, pericoronitis) or surgical origin (alveolitis, suture removal); biopsy of lesions with suspected malignancy and need of oral adequacy for oncology patients or pre-transplant patients of solid organs. These cases can be treated in clinic-school environment,<sup>14,17-19</sup>.

However, protocols for solving or minimizing the aforementioned emergencies and urgencies in the case of patients with special needs and elderlies are not always applicable to clinical practice. Thus, there is no correct regulation and determination of what should, or should not, be done clinically, given the different disability

conditions and special groups. The professional (undergraduate student under professor educational support) will determine the best strategy for dental practice through decision made along with the family, based on interdisciplinary planning<sup>10,14,19</sup>.

**Disinfection of protective stabilization devices, comfort for the patient with special needs, and professional adaptation in dental care**

Strategies that contribute to greater acceptance of dental treatment should be prioritized, as well as promoting greater comfort and tranquility to patients with special needs, such as pillows, neck support, and headrest, available in the clinical activities. Protective stabilizations (stabilizing straps) are recommended for patients

with maladaptive behavior in order to protect the patient and the work team (students and faculty) from possible injuries during dental procedures. Vacuum mattress, which provides greater comfort, body stability, and safety to patients during treatment, in addition to contributing as effective strategy in recreational activities are other resources for the dental care provided to patients with disabilities and special groups, available in the clinical activities<sup>11,16</sup>.

Chart 4 shows the necessary precautions for properly using and disinfecting devices used in the clinic, given that the integrated clinics and dental teams will undergo rigorous disinfection process carried out by the university's cleaning teams before and after the visits.

Chart 4. Instructions for correct use and disinfection of devices used in dental clinic provided to people with disabilities and special groups

Guidance to students and professors not to ask caregivers or family members for sheets for protective stabilization of patients with special needs, as well as avoid the presence of toys <sup>7,10</sup> * in case of extreme need, the entire cleaning process (running water + soap) and disinfection (70% alcohol) must be carried out in each appointment
Protective stabilization straps made of synthetic material should be disinfected with 70% alcohol before and after their use <sup>10</sup> * Protective stabilization straps will not be reused in other patients in the same shift
Vacuum mattresses, synthetic material positioning cushions, pillows, and head support will also be disinfected with 70% alcohol before and after use <sup>10,12,13,16</sup>
Mouth openers (wood spatula + tape + gauze) must be made in advance, autoclaved before use, and discarded afterwards <sup>10</sup>
Mouth openers must be subjected to biosafety protocols and standards and sent to the Material and Sterilization Center of the Dentistry undergraduate course for later reuse, whenever necessary <sup>10</sup>

**3 FINAL CONSIDERATIONS**

The authors of the current study hope that guidelines based on their educational perception can work as guidelines for the continuity of the clinical practice during the undergraduate course with focus on demystifying dental care for people

with disabilities and special groups in different life cycles.

Dental activities should be reorganized based on the guidelines, directions, and conducts that aim at avoiding cross-transmission and at reducing contamination by the coronavirus,

based on the institutional reality of each course.

## RESUMO

### **COVID-19 e atenção a pessoas com deficiência e grupos especiais na clínica-escola de Odontologia**

O presente artigo tem como finalidade abordar orientações e sugestões para o atendimento odontológico de pacientes com necessidades especiais (pessoas com deficiência) e idosos nas clínicas de graduação, considerando as implicações da COVID-19. A partir da publicação de orientações nacionais e internacionais de biossegurança, cuidados em saúde bucal e condutas odontológicas, foram elaboradas diretrizes para esta abordagem clínica. Espera-se a disseminação do conhecimento, informações e adaptações necessárias no ensino para uma melhor assistência e contribuição educacional aos graduandos, além da realização das atividades práticas de maneira segura no ambiente universitário.

**Descritores:** Infecções por Coronavírus. Pessoas com Deficiência. Odontologia Geriátrica. Educação em Odontologia. Desenvolvimento de Pessoal.

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