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Commentary

Coronavirus disease 2019 and dental care for older adults

New barriers require unique solutions

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The importance of oral health as part of the general well-being of older adults has been well documented.[1,2] However, frail older adults and those with multiple medical conditions have historically faced multiple barriers in accessing dental care, whether in private practice or in community health centers.[3,4] Consequently, multiple studies have emphasized that as a group these people usually have poorer oral health,[5] and those most at risk are older adults living in nursing homes,[6] as well as people who are homebound.[7]

Barriers to dental care are related to multiple factors, including, but not limited to, socioeconomic issues,[4] ageism,[8] and complex general health status with multiple comorbidities and polypharmacy.[9] Other factors include complex oral health status with heavily restored dentitions, xerostomia,[9] and lack of a sufficient number of dental providers trained in geriatric dentistry.[10]

Lack of finances limits access to dental care,[11] as does the lack of dental insurance, because Medicare does not cover dental treatment.[12] The reimbursement of dental services for patients who are receiving public assistance is low, so that many dentists in private practice cannot afford to treat these patients, which further limits their access to care.[11] Another barrier is that some of these frail older adults may have had bad childhood experiences with dental care, and consequently may fear or distrust dentists.[13] Many frail older adults have low dental health literacy,[14] which affects their understanding of the importance of oral health care and daily oral care, such as toothbrushing, the use of fluoridated toothpaste, and the importance of adjunctive aids such as fluoride rinses. Also, some do not value dental care because they still have the denture acceptance mentality of their parents, who accepted tooth loss and complete dentures as a part of normal aging.[15]

However, financial limitations are not the only socioeconomic barriers for accessing dental care.[16] Many older adults need help with navigating the complexity of health services. Depending on others for the activities of daily living[17] or being institutionalized[18] has been linked to reduced access to care. Many frail older adults also depend on others for transportation services to dental appointments, especially if they live in rural areas, and this dependence has been associated with reduced access to dental care.[4,17] In addition, some frail older adults have reduced mobility and need wheelchairs, and therefore for such a patient to be able to access a dental office it must be wheelchair accessible. However, many solo private dental practices still have accessibility issues, such as no entrance ramps, doors not wide enough for wheelchairs, a lack of elevators, no wheelchair-accessible restrooms, and dental chairs that are not movable.[19]

Another important social barrier is ageism, defined as prejudice against people on the basis of age, especially older adults.[20] Ageism is a pervasive form of social prejudice that often goes unnoticed, and ageism among health care providers has been linked to poorer health care outcomes for older adults.[21] Dentistry is no exception.[8] The World Health Organization has declared ageism as one of the most important barriers for older adults receiving age-appropriate health care.[22] Increasing awareness about ageism among dental students is a key to increasing the number of dentists in the workforce who are trained in geriatric dentistry.[8,10] Awareness about ageism can be increased by using multiple educational interventions, such as professional patients, intergenerational contacts, and simulations to understand the influence of aging on multiple activities that influence the ability of frail older adults to maintain oral hygiene and to access dental care.[23]

Frail older adults often have complex health histories, with multiple comorbidities and taking multiple medications,[9] as well as having heavily restored dentitions, which require complex dental

treatment planning, such as rational dental care.[9] In addition, many practitioners may not want to treat frail older adults as they may become frustrated with these patients because they are unable to maintain oral health. Furthermore, their oral condition may deteriorate due to the influence of xerostomic medications, poor eyesight, and lack of manual dexterity. Without hands-on training for dentists, such a frail older adult seeking care may make a general dentist uncomfortable and reluctant to accept this patient into his or her private practice. However, the opportunities for advanced training in geriatric dentistry have been reduced, from 16 funded programs to 6 fee-charging programs, in spite of the fact that the population of frail older adults is increasing.[24]

In addition to the multitude of historical barriers, some of which have been addressed above, frail older adults will face a new set of barriers related to the emergence of COVID-19, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Older age and comorbidities were identified early as major risk factors for poorer outcomes among people with COVID-19.[25] The case fatality rate in people 80 years and older is as high as 22%.[26]

In addition, medications commonly used by older adults, such as angiotensin-converting enzyme inhibitors and angiotensin II receptor blockers, have been shown to upregulate the angiotensin-converting enzyme−2 receptor, which is the receptor used by the COVID-19 pathogen to invade human cells and cause severe acute respiratory syndrome. As a consequence, patients using these medications are at increased risk of developing COVID-19.[26] Although older adults have been the age group most affected by the pandemic, they have not been at the center of the COVID-19 discussions, nor have clear guidelines been provided for the care of community-dwelling older adults.[27]

Much attention has focused on nursing homes because they have become hot spots for COVID-19. At present, owing to the summative effect of asymptomatic shedding and a shortage of personal protective equipment (PPE) and testing kits, multiple nursing home COVID-19 outbreaks have been observed across the United States.[28,29] A major risk factor is that many caregivers in the nursing homes are undereducated, poorly trained, or both; live in multigenerational homes, which do not allow for social distancing; and often must use public transportation. This increases their risk of becoming infected and consequently bringing the virus to nursing homes.[29,30] In addition, residents with cognitive impairments, which make up a significant proportion of US nursing home residents, are unlikely to follow any COVID-19 best practice precautions.[28] Unfortunately, more caregivers are avoiding helping residents with daily oral hygiene owing to fear of SARS-CoV-2 infection through saliva contact, resulting in higher levels of plaque and more dental disease in residents.

Among the multiple procedures being implemented as protective measures against COVID-19, nursing homes are improving their infection control protocols, eliminating group activities, and barring visitors, including health care consultants.[28] The impact of months of inaccessible consultant care by providers may have an impact on the health of nursing home residents. Dental care was deemed a nonessential service, and therefore elective dental treatment is among the most postponed activities by community-dwelling frail older adults, especially residents in nursing homes.[31] At present, there are limited options for emergency dental care while nursing homes restrict activities to a minimum. The options are teledentistry triage for observation, referral to a hospital with a dental department for extractions, or prescribing antibiotics. If dental infection is neglected, there is a risk that the patient may require hospital admission with intravenous antibiotics for facial swelling due to a dental abscess. However, some people, especially those with dementia, cannot be easily transferred outside of the facility. Another complication is that most nursing homes require a 14-day quarantine for residents if they need to go outside the facility. In addition, families are stressed because they are unable to see their loved ones who are living in nursing homes and find it difficult to safely access needed health care for them. To alleviate the damage created by the potential lack of dental care, general practitioners will need to be empowered to include these patients in their practices.

At present, there may be an opportunity to educate nondental health care providers (for example, medical directors, directors of nursing, and administrators of nursing homes) about how to use technology to transmit pictures of the oral cavity to dental professionals to evaluate residents' oral hygiene and dental problems and to generate necessary referrals. Webinars sponsored by aging, dementia, and oral health organizations, such as the Gerontological Society of America, should be developed to educate nondental professionals about the importance of oral health and to enhance interprofessional collaboration. A systematic review evaluated various initiatives to educate nursing home staff members about the importance of daily oral hygiene care for residents,[32] and most have failed because of structural deficiencies in nursing homes, such as understaffing, overwork, and poor pay.[33] The initiatives that have

been successful have required external funding. However, there are some resources available to help educate nursing home staff members about oral hygiene routines, such as Mouth Care Without a Battle,[34] and the GeriaDental app.[35] Teledentistry can also be used to motivate patients, caregivers, and nursing home staff members to maintain oral hygiene routines and to provide synchronous guidance to staff members when they are brushing the teeth of difficult patients. It can also be used to educate staff members about cariogenic foods.

In many states, current public health guidelines have recommended that dentists perform emergency care only in their private practices.[36] As states are lifting restrictions, dental practices are reopening. The problem that has been widely discussed concerns how one can safely deliver dental care, which often involves generating aerosols that contain respiratory droplets, which is the way SARS-CoV-2 is transmitted. This makes regular dental care a high-risk activity for spreading COVID-19.[37] Therefore, new and enhanced infection control precautions targeting respiratory pathogen transmission will need to be implemented in dental clinics. The new preventive measures could include enhanced infection control protocols, such as fogging with antiviral aerosol and the use of N95 respirators, full-face shields, eye protection goggles, isolation gowns and head covers, as well as high-power suction and filters in the heating and cooling systems.[36]

Older adults with comorbidities have been informed that they are at higher risk of experiencing a poor outcome if they become infected with the COVID-19 virus. Consequently, many older patients are fearful of returning for regular dental appointments in private practices or community health centers. Dentists are concerned about the safety their older adult patients with comorbidities and so are reluctant to treat them at this time. The use of enhanced infection control will increase the overhead cost for the dentist and will need to be recuperated by charging higher fees, and this may become another barrier to dental care for a group that is already experiencing the cumulative effect of multiple barriers.

Infection risks can be minimized by reducing aerosol-generating procedures, using silver diamine fluoride and other atraumatic restorative techniques to manage caries, and using hand scaling for periodontal maintenance.

How can dentists manage this situation? The dentists caring for frail older adults are working with some already known alternatives, involving but not limited to working collaboratively with the general health care team to assess and mitigate the risk for the most vulnerable groups. Patients with multiple comorbidities will require a medical consultation as to the stability of their systemic health. Using the information provided, the dentist will need to develop a rational dental care treatment plan[15] and appropriate PPE to safely treat them.

Initially, teledentistry may be an important tool for assessing some high-risk patients who might not be able to come to the office owing to illness, isolation, or quarantine.[38] Teledentistry is useful for following up on patients who underwent a procedure recently at the office or to assess a patient who is experiencing acute dental pain. As stated earlier, such a patient may need analgesics or antibiotics if there is facial swelling until the patient can return to the dental office for definitive care or need a referral to a hospital emergency department that has a dental service. Dentists should use teledentistry to consult with only their own patients or with a patient who has been referred to them. The dentist needs to identify the patient, have the patient's clinical record available, and inform the patient about the limitation associated with a teledentistry consultation. At the end of the teledentistry appointment, the dentist must write a detailed record of the appointment.

We also need to educate our frail older adult patients and their care providers about the mitigation strategies being used in private practices and community health centers to minimize patient risk of developing COVID-19 infection during dental care. The strategies include appropriate assessment of COVID-19 symptoms, taking patients' temperatures, social distancing, and using adequate PPE. Also, infection risks can be minimized by reducing aerosol-generating procedures,

using silver diamine fluoride and other atraumatic restorative techniques to manage caries, and using hand scaling for periodontal maintenance. In addition, when dentists are allowed to reenter nursing home facilities to deliver dental care, they must use enhanced infection control precautions, which may include testing residents for COVID-19 before the visit.

For some of these changes to be effective and sustainable, reimbursement rates will need to be reevaluated. Therefore, we will need the help of our dental colleagues to lobby for changes in reimbursement rates from third-party companies if we are to care for these frail and vulnerable older adults. ■

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