



RESEARCH REPORT

Oral Health Professionals Are Ready to Accept Teledentistry

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Methodology

The survey was a collaboration with Advantage Dental Oral Health Centers leadership and practice staff and CareQuest Institute for Oral Health, who supported survey development and data analysis. This was a repeated cross-sectional voluntary survey. Data was collected at baseline (October through December 2020), three-month (January through March 2021), and six-month (May through June 2021) intervals through SurveyMonkey. The goal of the survey was to see if thoughts about and experiences with teledentistry change over time. The survey consisted of both opinion and experience-based questions, as well as demographic questions. Sample size for each survey consisted of baseline n=121, three-month follow-up n=163, and six-month follow-up n=137, for an average response rate of 30%.



Introduction

Many patients face barriers accessing care from oral health providers such as dentists, dental specialists, and dental hygienists. Some of these barriers include transportation, lack of dental providers in rural areas, lack of awareness around oral health, and cost. These challenges have raised interest in exploring innovative options for delivery methods of care outside the brick-and-mortar setting, which is where teledentistry offers a viable solution. Teledentistry is a care delivery method many oral health providers leveraged as a response to the COVID-19 shutdowns in 2020. Though defined in various ways, teledentistry can be understood as the use of technology and telehealth systems connecting patients to providers, in different physical settings, to access a variety of oral health services. Teledentistry is utilized in two basic ways:

- 1) synchronous: a live, two-way interaction; and/or
- 2) asynchronous: a store-and-forward method where data is collected and then sent to a dental provider for review at a later time.

During the pandemic, many oral health providers explored synchronous teledentistry for virtual patient visits. Subsequently, CareQuest Institute for Oral Health began to explore dental provider use and perceptions of teledentistry through a series of surveys. The first nationwide [survey](#) of 2,767 providers, conducted in August 2020, found teledentistry

was a valuable way for providers to stay connected to patients and triage dental emergencies. Many providers are still using teledentistry in varying capacities, while others are curious about how it could be implemented in their daily practice. Another [report](#) published in 2021 by CareQuest Institute showed providers continue to be comfortable and confident in utilizing teledentistry, even after the 2020 pandemic shutdown. One area that seemed to cause uncertainty was choosing the best teledentistry platform that was both easy for providers to use and ensured HIPAA compliance. Other barriers to regular use of teledentistry include technology challenges for the patient both in use of and access to devices for a teledentistry visit; limited broadband services for rural populations; and varying reimbursement from state to state for teledentistry.

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services. Additionally, if dental providers and their staff are not well trained in teledentistry methods and workflows, this could lead to poor uptake of the modality and increases the potential for poor patient outcomes.

To add to the evidence of provider perceptions of teledentistry and explore staff readiness to use teledentistry, CareQuest Institute conducted a survey of dental team members from the Advantage Dental Oral Health Center in Oregon and Washington state. Survey administration aligned with the deployment of a teledentistry software platform within Advantage Dental practices. The first survey was collected between October and December of 2020 to gather baseline provider and staff perceptions about teledentistry before the

teledentistry software was first introduced into practice. The survey included feedback from dental providers (general dentists, dental specialists, and regional dental directors) and staff members (practice managers and care coordinators). Two follow-up surveys were then administered at three- and six-month intervals to evaluate staff perceptions during the implementation of the teledentistry software. This data was collected between January and March of 2021 and May and June 2021, respectively. These surveys explored changes in dental staff perceptions of teledentistry as they gained experience creating teledentistry workflows and used the software over a period of six months.

Readiness to Accept Teledentistry

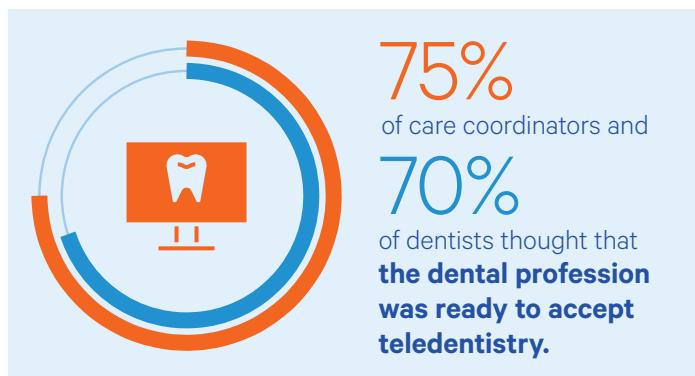
At baseline, when participants were asked if they thought the dental profession was prepared to accept teledentistry as a care delivery method, 72% agreed. Comparisons were made between care coordinators and dentists' perspectives, as these two groups were the most extensively trained to use the virtual teledentistry platform system. Three-quarters of care coordinators and 70% of dentists thought that the dental profession was ready to accept teledentistry. When asked how successful they thought the virtual teledentistry platform would be in their setting, the majority of respondents thought it would be somewhat (53%) and very (22%) successful. Both providers and staff were equally optimistic about the platform being successful (care coordinators 75%, dentists 76%) for care delivery. At follow-up, dentists reported using both synchronous and asynchronous modalities to communicate with patients and deliver dental care, while office staff (such as care coordinators) used both modalities to schedule or explain treatment and coordinate office visits and referrals. While

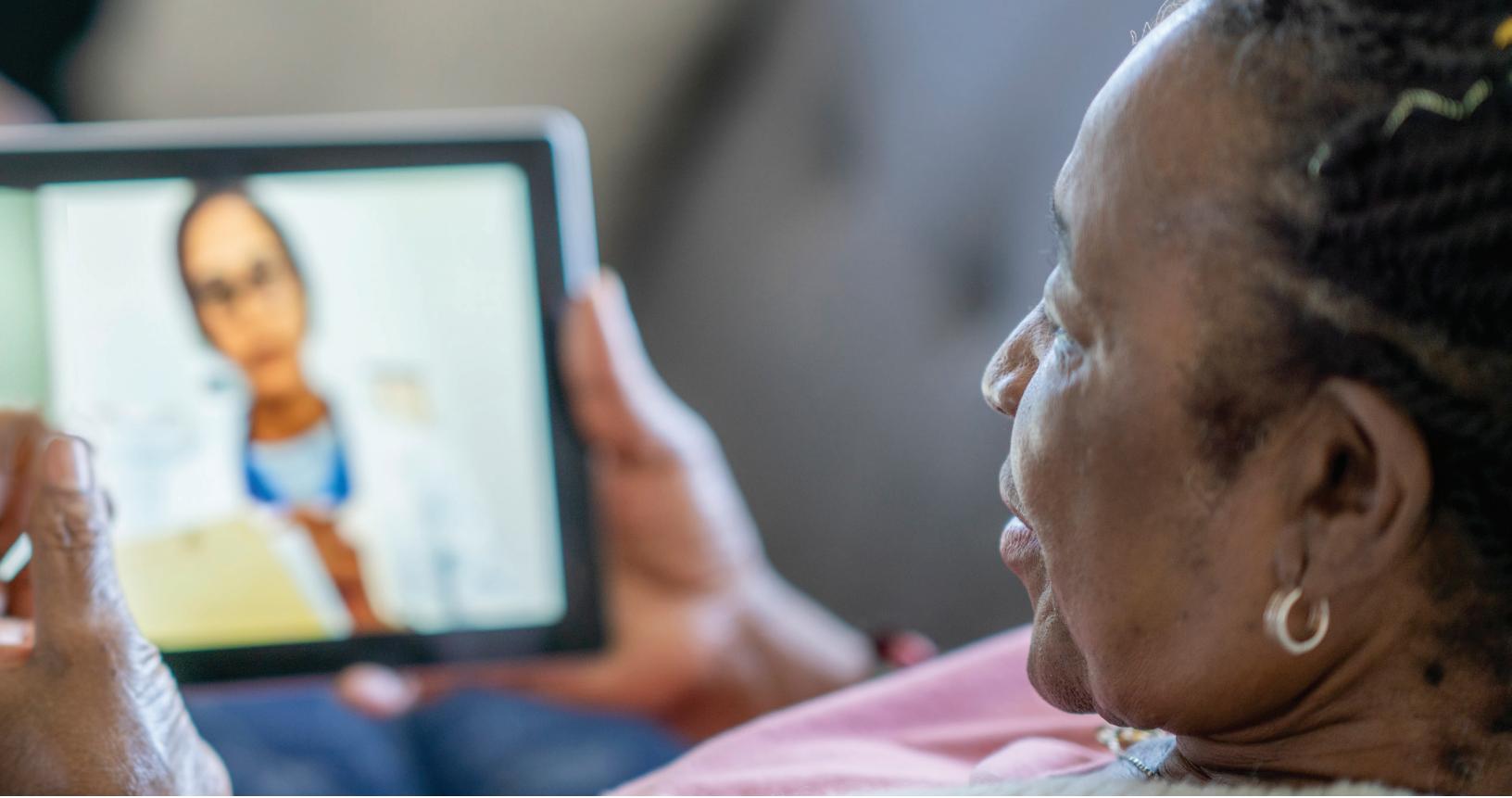
providers and staff utilized teledentistry in different capacities, the intended result of the survey was to gauge success in terms of provider/staff and patient satisfaction and increased access to and utilization of quality oral health care.

Before implementation, respondents anticipated some challenges with teledentistry implementation:

- Thirty-seven percent thought it would increase their time spent with patients.
- Sixty-nine percent thought it would increase their day-to-day responsibilities.
- Over half of respondents (57%) thought it would also increase the administrative burden on staff.
- Nearly a third (32%) of respondents thought that the quality of care given to patients would decrease with the use of teledentistry.

Overall, a large percentage of those surveyed felt optimistic about teledentistry implementation. While not all individuals initially viewed teledentistry as a viable care delivery method, most respondents' concerns were centered around time management and added staff work burden. This highlights the need for a calibrated team and efficient workflow design when implementing teledentistry.

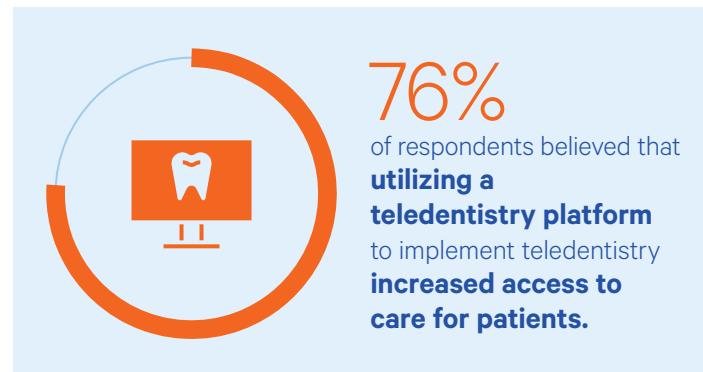
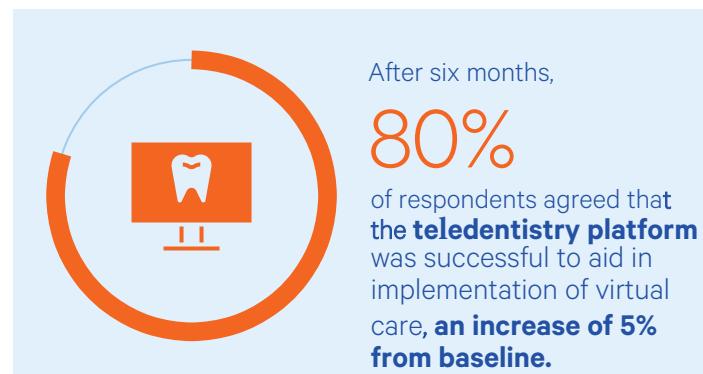




Dental Team Success with Teledentistry

After six months of teledentistry implementation, 80% of respondents agreed that the teledentistry platform was successful to aid in implementation of virtual care, an increase of 5% from baseline. After this same six-month period, 15% more care coordinators agreed that the platform was successful when compared to baseline, whereas dentists' agreement stayed exactly the same as baseline. At the six-month follow-up, almost 85% of respondents said dentistry was ready to accept teledentistry as a care delivery method, a 13% increase from baseline. This is significant because perception of overall acceptance increased after providers at targeted sites implemented the use of a teledentistry platform and gained experience with teledentistry practice. Dentists and practice staff had more than a 10% increase in agreement that oral health care professionals are ready to accept teledentistry as a viable system of care delivery (care coordinators showed a 13% increase, dentists an 11% increase).

Over three quarters (76%) of respondents believed that utilizing a teledentistry platform to implement teledentistry increased access to care for patients. This is important because many populations face multiple barriers to accessing



their needed dental care. This survey shows that from the provider perspective, teledentistry can in fact increase access to care. We also saw that by the six-month interval, half (51%) of the staff surveyed agreed that utilizing a teledentistry platform increased patient satisfaction and helped shorten patient wait time to get an appointment (47%). Not only were providers and staff seeing the positive impacts from their perspective, but they also perceived benefits to patients. This addresses some of the initial concerns, as some survey participants felt teledentistry may decrease the quality of patient care. In fact, at six months, 23% of participants disagreed that teledentistry put patients at risk for delay of needed care, and 54% agreed or strongly agreed that teledentistry helped patients receive care based on needs and risk for developing oral disease. This shift in perception over six months speaks to the success of providers and staff utilizing teledentistry, specifically with a teledentistry platform, in ways that improved patient care:

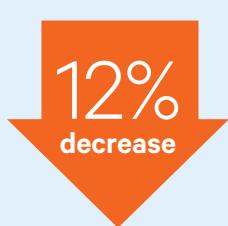
- At three months, 22% agreed teledentistry aided in accurate diagnoses.
- At three months, many participants agreed teledentistry made it easier to prescribe medication to established patients (69%) and new patients (44%).
- At three months, 32% agreed teledentistry improved interaction between peers.
- At six months, 51% of participants agreed that teledentistry improved interaction between patients.
- At six months, 44% agreed teledentistry made referrals more efficient.

Note: Some questions listed above were asked only at baseline and three months, and not six months, which did impact reporting of results.

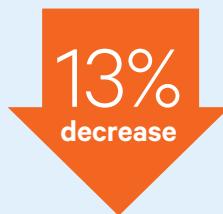
Lastly, after implementing teledentistry through a platform for six months, respondents were less likely to feel that teledentistry increased burden on staff (12% decrease) and also felt it did not increase their day-to-day responsibilities (13% decrease). Staff reported that teledentistry did not add to their workload but enhanced the care delivery experience for both the dental professional and patient. Teledentistry alleviated some barriers many patients faced accessing dental care and made getting care more convenient. While teledentistry does not replace all in-person visits, it gave providers an opportunity to triage patients' needs, prescribe medications, and make appropriate referrals. These findings are significant as they are some of the reasons those surveyed at baseline were less likely to accept teledentistry as a viable care delivery method.

While time management was a concern expressed by some respondents at baseline, it was no longer reported as a barrier at the six-month interval. While implementing a new care delivery method certainly brings challenges and requires new workflows, the success demonstrated through the Advantage Dental teledentistry experience was seen as a generally positive experience for the dental teams and their patients. Implementing teledentistry over a six-month period not only improved patient care, specifically lessened patients' wait times for an appointment, increased quality of time between patient and provider, and made referrals more efficient, but also underscored the importance of dental team collaboration, over time, to overcome implementation challenges.

After implementing teledentistry through a platform for six months, respondents



were less likely to feel that teledentistry increased burden on staff



felt it did not increase their day-to-day responsibilities



Conclusion

The survey results show evidence of the promise teledentistry holds for increasing access to care, reducing patient barriers, and improving staff perceptions of care delivery. Utilizing a teledentistry platform to deliver virtual care was an overall positive experience for staff and patients, and perceived challenges for using teledentistry decreased over time. This survey revealed not only satisfaction with teledentistry but also positive attitudes toward its continued use, suggesting an opportunity for dental teams to grow their capacity to utilize the modality. As dentistry continues to explore approaches to care delivery that are valuable to staff, patients, and the health care system, innovation is required. These changes in staff perceptions demonstrate that teledentistry can be a tool for provider-enabled innovation and patient-centered care.

Utilizing a teledentistry platform to deliver virtual care was an overall positive experience for staff and patients, and perceived challenges for using teledentistry decreased over time.

CareQuest Institute for Oral Health

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