

The Use of Teledentistry for Patient Care among Dentists in Nigeria

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ABSTRACT

Objectives: To determine the proportion of Nigerian dentists presently utilising Teledentistry, factors affecting its use, means of communication and devices used and their opinions on its acceptability, effectiveness and suitability in dental practice.

Methods: A Survey Monkey online poll was used to collect data on participants' demographics, their use of Teledentistry, perceived benefits and challenges of Teledentistry, as well as opinions on its acceptability, effectiveness, and suitability. The chi-square test was used to determine statistically significant differences between groups.

Results: Out of 119 participants, 62.2% do not currently utilize Teledentistry. Less than half (42.6%) with internet access at work and 12.5% with internet access only at home utilize Teledentistry ($P=0.016$). Cell phones and personal computers are the only devices used but 60% of participants in public health care used cell phones ($P=0.425$). The majority (94.9%) of the study participants agreed that Teledentistry can be used to connect patients with specialist care that may not be readily available but only 47.1% agreed to the use of Teledentistry for specialized care of patients. Eighty-four per cent agreed that the cost of telecommunications equipment for Teledentistry can be a cause for concern and 66.4% agreed that privacy is still a concern in Teledentistry.

Conclusion: The use of Teledentistry among Nigerian dentists is currently low and access to the Internet during work hours may increase Teledentistry utilisation. Cell phones and personal computers are commonly used in both public and private dental centers. Although many Nigerian dentists consider Teledentistry effective, there are a few concerns about its acceptability and suitability for use in their dental practice

Keywords: Teledentistry, Nigerian Dentists, Utilisation, Tools, Opinion

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INTRODUCTION

Teledentistry is the use of a broad variety of technologies and methodologies to deliver virtual oral health care and education services.¹ It involves the use of the internet and allows networking, sharing digital dentistry information, distant consultations, workup of patients and remote analysis of their clinical and laboratory information. There are various experiences of Teledentistry in many parts of the world, especially in America and Europe.² Teledentistry has found important applications in oral medicine and oral surgery, orthodontics, endodontics, conservative dentistry, paediatric dentistry, periodontics and oral hygiene as well as prosthodontics.³⁻⁸ It provides access to Telecommunication, consultation and diagnosis, Tele-education, motivation and assistance, Tele-administration, Tele-surveillance and Tele-maintenance.⁹ Teledentistry was the protocol of choice during the COVID-19 pandemic when the possibility of cross-infection substantially decreased access to dental care.^{10,11} It was used for education, consultation and triage; it was also beneficial to older and vulnerable populations.^{10,11} Following the COVID-19 pandemic, more than half of Nigerian dentists made immediate changes in their practice of Teledentistry in the form of provision of telephone consultation.¹² Teledentistry promises to enhance and support practitioners in isolated or rural areas as well as new healthcare workers, where there is internet connectivity.¹³

The practice of dentistry in many parts of the world has developed to the point where dental clinics with computerised patient registry, electronic invoicing, digital radiography, intraoral cameras, digital cameras, 3D computerized systems for prosthetic dental reconstruction, 3D cone beam computerized tomography and other high-quality computer systems are now commonplace.¹⁴ These advances in the practice of Teledentistry are largely Internet-based and are favoured by many for their speed, low cost, efficacy, opportunity for better-documented consultation and simultaneous communication of multiple participants.¹⁵ However, some dentists have not fully embraced Teledentistry because of the necessity for appropriate training, pressure for instant responses and the possibility of a message from one practitioner to another being neglected or misunderstood. There are also some privacy concerns in the sharing of patient's information and records.^{10,11}

There is presently no policy or formal structure for Teledentistry in Nigeria. However, there is no doubt that Teledentistry has the potential to enhance the standard of oral health care delivery in Nigeria. Concrete efforts must therefore be made to identify and surmount challenges that may prevent the Nigerian dentist from maximising the gains of Teledentistry. These efforts would include basic steps of gaining knowledge of the perspectives of Nigerian dentists on Teledentistry and determining what is presently obtainable in the area of Teledentistry. Therefore, the objectives of this study are to determine the proportion of Nigerian dentists presently utilising Teledentistry, factors that may affect its use, preferred means of communication and devices used and their opinions on the acceptability, effectiveness and suitability of Teledentistry in dental practice.

MATERIALS AND METHODS

This study employed a cross-sectional research design and was carried out among Nigerian dentists recruited through the Nigerian Dental Association (NDA) National WhatsApp group II, a platform having 383 dentists from across the 6 geopolitical zones of Nigeria. The study did not discriminate based on gender, age, or any other demographic factors. Participation was voluntary.

Data for this study were collected using an online survey designed and distributed through SurveyMonkey. The survey was open for one month and the link to the survey was repeatedly sent weekly to the WhatsApp group. The data collected using the SurveyMonkey online poll included information such as study participants' age, gender, qualification(s), work experience (in years), location and type of practice, working hours per week, daily use of the internet for general purposes (in hours), daily use of the internet in dental practice (in hours), preferred communication tools with other dental practitioners, preferred dental specialty for application of Teledentistry, the present use of Teledentistry, and their dental practices' list of ICT and other dental devices for Teledentistry. A 5-response Likert scale (strongly agree, agree, undecided, disagree, strongly disagree) was used to determine the aspect of Teledentistry that the study participants considered beneficial and challenging as well as their opinions on the acceptability, effectiveness, and suitability of the use of Teledentistry in their dental practices (Appendix 1). For analysis, the Likert scale was modified to 3 responses: agree, undecided and disagree, the dental practices were grouped into 2:

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Private and public and the geopolitical zones were also grouped into 2: Southern zones and Northern zones

Data analysis was carried out using the IBM SPSS software version 21.0 (SPSS Institute, Chicago, IL, USA) and summary statistics were obtained for all variables. Since the groups in this study were uneven, row-relative frequency tables were used to show the proportion and percentage of variables within groups. The chi-square test was used to determine statistically significant differences. A p-value less than 0.05 was considered statistically significant.

This study was conducted with the approval of the Ethics and Research Committee of the University of Benin Teaching Hospital [ADM/E 22/A/VOL. VII/148301107]. Efforts were made to ensure confidentiality and adherence to ethical principles by removing all forms of identifiers. Only participants who clicked the button, giving their consent to participate, were able to proceed with the SurveyMonkey online poll.

RESULTS

A total of 119 dentists responded to the survey monkey survey (31.1% of the dentists on NDA Whatsapp group II). The majority (42.9%) were in the 35-44 years age group. Males constitute 62.2% of the participants and 48.7% were undergoing the residency training programme. More than three-quarters (80.7%) of the dentists were from the southern geopolitical zones of Nigeria, 78.2% work in public health care centres and 83.2% work more than 30 hours per week. Most (91.6%) do not spend more than 5 hours on the Internet for dental practice while 69.8% do not spend more than 5 hours on the Internet for general purposes. (Table 1).

The majority (62.2%) of the study participants do not currently use Teledentistry. Out of all the participants from the southern and northern geopolitical zones, 59.4% and 73.9% do not currently use Teledentistry respectively (P=0.216). Also, out of all the participants who work in private and public dental practice, 61.5% and 62.4% respectively do not currently use Teledentistry (P=0.939) (Table 2).

Furthermore, the majority of those who had formal computer training (73.5%) do not currently use Teledentistry while 42.9% of those with informal computer training currently use Teledentistry

(P=0.149). Less than half (42.6%) with internet access at work and 12.5% with internet access only at home utilize Teledentistry (P=0.016). About two-thirds (63.6%) of the participants who spend more than 10 hours daily on the Internet for general purposes (P=0.356) and 50% of those who spend more than 10 hours daily on the Internet for dental practice do not currently use Teledentistry (P=0.861) (Table 3).

More participants found the application of Teledentistry more beneficial in Family Dentistry followed by Oral and Maxillofacial Surgery and then Orthodontics (Figure 1). The most preferred means of communication with other dentists are voice calls (45.4%) and live video communication (44.5%) (Figure 2). Cell phones and personal computers are the only ICT devices used for Teledentistry at the various centres. More of the respondents (60%) working in public health care centres preferred cell phones (P= 0.425) (Table 4).

Regarding the effectiveness of Teledentistry in dental practices, the majority (81.5%) of the study participants agreed that Teledentistry can help to close the gap in access to care, particularly for rural and underserved populations and 94.9% agreed that Teledentistry can be used to connect patients with specialist care that may not be available in their local community (Table 5).

In the participants' opinion of the acceptability of Teledentistry in their dental practices, 61.4% and 40.3% agreed with patient management via electronic media and mobile phones respectively. Only 58.8% and 47.1% agreed to the use of Teledentistry for routine and specialized care of patients respectively and fewer, 21.9% and 38.7% agreed that Nigerian patients and Nigerian dentists are ready for Teledentistry respectively (Table 6).

Concerning the suitability of Teledentistry in dental practice, the majority (84%) agreed that the cost of telecommunications equipment for Teledentistry can be a cause for concern, 94.1% agreed that there is a need for appropriate training for Teledentistry. 87.4% agreed that there could be pressure for an instant response when Teledentistry is used for patient care, 78.2% agreed that there could be a misunderstanding of messages sent out to other practitioners involved with patient care when using Teledentistry and 66.4% agreed that privacy is still a concern in Teledentistry (Table 7).

Table 1: Sociodemographic characteristics of the study participants

| Demographic Variables | Response | Frequency | Percentage |
|--|-----------------------|------------|--------------|
| Age (years) | 20-34 | 42 | 35.3 |
| | 35-44 | 51 | 42.9 |
| | 45-54 | 23 | 19.3 |
| | 55-64 | 3 | 2.5 |
| Gender | Male | 74 | 62.2 |
| | Female | 45 | 37.8 |
| Cadre | House officer | 11 | 9.2 |
| | Dental officer | 31 | 26.1 |
| | Junior resident | 32 | 26.9 |
| | Senior resident | 26 | 21.8 |
| | Consultant | 19 | 16.0 |
| Geopolitical zone | Southern | 96 | 80.7 |
| | Northern | 23 | 19.3 |
| Type of practice | Private | 26 | 21.8 |
| | Public | 93 | 78.2 |
| Work hours/week | 1-10 | 8 | 6.7 |
| | 11-20 | 5 | 4.2 |
| | 21-30 | 7 | 5.9 |
| | >30 | 99 | 83.2 |
| Hour spent daily on the internet for general purpose | Not more than 5 hours | 83 | 69.8 |
| | 6-10 hours | 25 | 21.0 |
| | More than 10 hours | 11 | 9.2 |
| Hour spent daily on the internet for dental practice | Not more than 5 hours | 109 | 91.6 |
| | 6-10 hours | 6 | 5.0 |
| | More than 10 hours | 4 | 3.4 |
| Total | | 119 | 100.0 |

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Table 2: The proportion of respondents currently utilising Teledentistry

| Demographic Variables | Current use of Teledentistry | | | P value |
|--------------------------|------------------------------|------------------|--------------------|---------|
| | Yes n (%) | No n (%) | Total n (%) | |
| Gender | | | | |
| Male | 27 (22.7) | 47 (39.5) | 74 (62.2) | 0.702 |
| Female | 18 (15.1) | 27 (22.7) | 45 (37.8) | |
| Cadre | | | | |
| House officer | 3 (6.7) | 8 (10.8) | 11 (9.2) | 0.787 |
| Dental officer | 11 (24.4) | 20 (27.0) | 31 (26.1) | |
| Junior resident | 11 (24.4) | 21 (28.4) | 32 (26.9) | |
| Senior resident | 11 (24.4) | 15 (20.3) | 26 (21.8) | |
| Consultant | 9 (20.1) | 10 (13.5) | 19 (16.0) | |
| Geographical zone | | | | |
| Southern | 39 (40.6) | 57 (59.4) | 96 (100.0) | 0.216 |
| Northern | 6 (26.1) | 17 (73.9) | 23 (100.0) | |
| Type of practice | | | | |
| Private | 10 (38.5) | 16 (61.5) | 26 (100.0) | 0.939 |
| Public | 35 (37.6) | 58 (62.4) | 93 (100.0) | |
| Total | 45 (37.8) | 74 (62.2) | 119 (100.0) | |

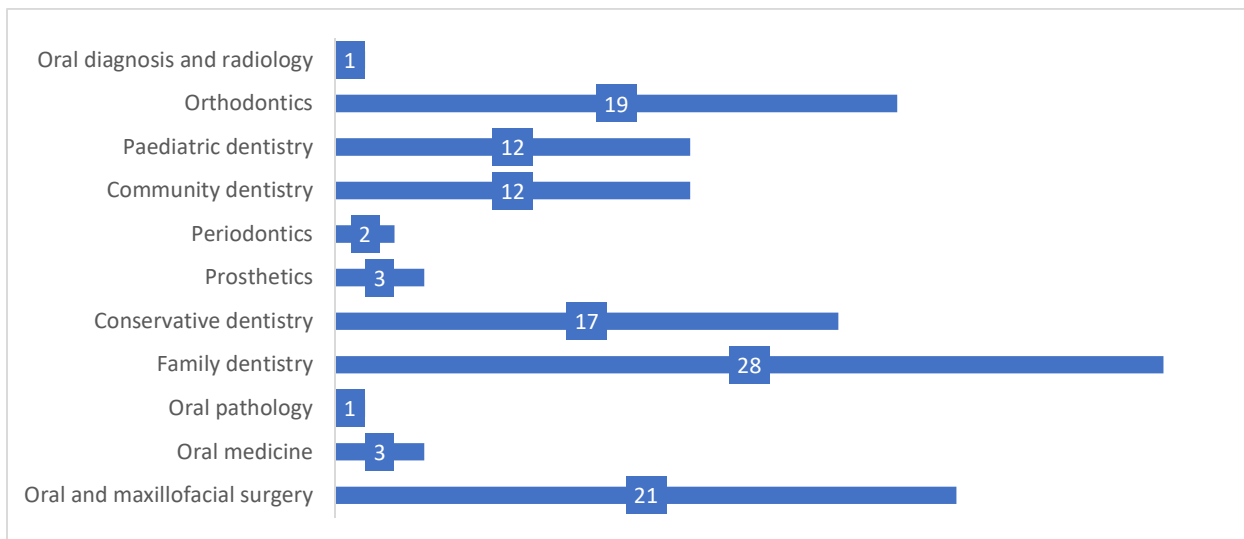


Figure 1: Respondents' opinion on areas of dentistry where Teledentistry is beneficial

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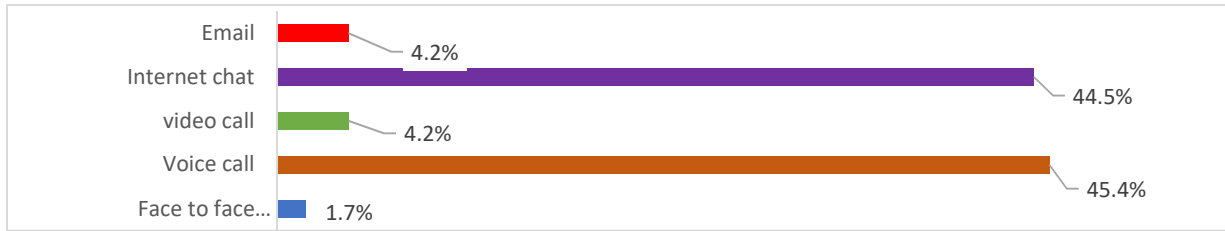


Figure 2: Preferred means of communication used by the respondents

Table 3: Factors that may affect the use of Teledentistry

| Demographic Variables | Current use of Teledentistry | | | P value |
|---|------------------------------|------------------|--------------------|---------|
| | Yes n (%) | No n (%) | Total n (%) | |
| Level of computer training | | | | |
| No training | 0 (0.0) | 1 (100.0) | 1 (100.0) | 0.149 |
| Informal training | 36 (42.9) | 48 (57.1) | 84 (100.0) | |
| Formal training | 9 (26.5) | 25 (73.5) | 34 (100.0) | |
| Access to internet connectivity | | | | |
| At home only | 2 (12.5) | 16 (87.5) | 18 (100.0) | 0.016 |
| At work | 43 (42.6) | 58 (57.4) | 101 (100.0) | |
| Work hours/week | | | | |
| 1-10 | 1 (12.5) | 7 (87.5) | 8 (100.0) | 0.300 |
| 11-20 | 1 (20.0) | 4 (80.0) | 5 (100.0) | |
| 21-30 | 3 (42.9) | 4 (57.1) | 7 (100.0) | |
| >30 | 40 (40.4) | 59 (59.6) | 99 (100.0) | |
| Hour spent daily on the internet for general purpose | | | | |
| Not more than 5 hours | 28 (33.7) | 55 (66.3) | 83 (100.0) | 0.263 |
| 6-10 hours | 13 (52.0) | 12 (48.0) | 25 (100.0) | |
| More than 10 hours | 4 (36.4) | 7 (63.6) | 11 (100.0) | |
| Hour spent daily on the internet for dental practice | | | | |
| Not more than 5 hours | 41 (37.6) | 68 (62.4) | 109 (100.0) | 0.861 |
| 6-10 hours | 2 (33.3) | 4 (66.7) | 6 (100.0) | |
| More than 10 hours | 2 (50.0) | 2 (50.0) | 4 (100.0) | |
| Total | 45 (37.8) | 74 (62.2) | 119 (100.0) | |

Table 4: The types of information and communication technology (ICT) and dental devices used for Teledentistry at the various centres

| Type of practice | Cell phone n (%) | Devices used for Teledentistry | | P value |
|------------------|------------------|--------------------------------|-------------|---------|
| | | Personal computer n (%) | Total n (%) | |
| Private | 5 (50.0) | 5 (50.0) | 10 (100.0) | 0.472 |
| Public | 21 (60.0) | 14 (40.0) | 35 (100.0) | |

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Total 26 (57.8) 19 (42.2) 45 (100.0)

Table 5: Respondents' opinion on the effectiveness of Teledentistry in their dental practices

| | Disagree n (%) | Undecided n (%) | Agree n (%) |
|--|----------------|-----------------|-------------|
| Teledentistry is more convenient than traditional dental care. | 31 (26.1) | 43 (36.1) | 45 (37.8) |
| Teledentistry can often be less expensive than traditional in-office dental care. | 37 (31.1) | 33 (27.7) | 49 (41.2) |
| Teledentistry can help to close the gap in access to care, particularly for rural and underserved populations. | 12 (10.1) | 10 (8.4) | 97 (81.5) |
| Teledentistry can improve patient outcomes by providing timely diagnosis and treatment of dental problems. | 6 (5.0) | 14 (11.8) | 99 (83.2) |
| Teledentistry can reduce the need for travel, which can be especially beneficial for families with young children. | 25 (21.0) | 12 (10.1) | 82 (68.9) |
| Teledentistry can be used to connect patients with specialist care that may not be available in their local community. | 4 (3.4) | 2 (1.7) | 113 (94.9) |
| Teledentistry appointments are often shorter than traditional appointments | 10 (8.4) | 30 (25.2) | 79 (66.4) |
| Teledentistry makes it possible for dentists can see more patients | 9 (7.6) | 24 (20.2) | 86 (72.2) |

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Table 6: Respondents' opinion on the acceptability of Teledentistry in their dental practices

| | Disagree n (%) | Undecided n (%) | Agree n (%) |
|--|----------------|-----------------|-------------|
| I agree with patient management via electronic media | 20 (16.8) | 26 (21.8) | 73 (61.4) |
| I agree with patient management via mobile phone | 39 (32.8) | 32 (26.9) | 48 (40.3) |
| I approve Teledentistry for routine care of patients | 28 (23.5) | 21 (17.7) | 70 (58.8) |
| I approve Teledentistry for specialized care of patients | 42 (35.3) | 21 (17.6) | 56 (47.1) |
| Nigerian dental patients are ready for Teledentistry | 58 (48.7) | 35 (29.4) | 26 (21.9) |
| Nigerian dentists are ready for Teledentistry | 38 (31.9) | 35 (29.4) | 46 (38.7) |

Table 7: Respondents' opinion on the suitability of Teledentistry in their dental practices

| | Disagree n (%) | Undecided n (%) | Agree n (%) |
|---|----------------|-----------------|-------------|
| The cost of telecommunications equipment for Teledentistry can be a cause for concern. | 10 (8.4) | 9 (7.6) | 100 (84.0) |
| There could be a necessity for appropriate training for Teledentistry | 2 (0.0) | 7 (5.9) | 112 (94.1) |
| There could be pressure for an instant response when Teledentistry is used for patient care | 3 (2.5) | 12 (10.1) | 104 (87.4) |
| There could be a misunderstanding of messages sent out to other practitioners involved with patient care when using Teledentistry | 10 (8.4) | 16 (13.4) | 93 (78.2) |
| Privacy is a concern in Teledentistry | 26 (31.8) | 14 (11.8) | 79 (66.4) |

DISCUSSION

The results of this study reveal that Teledentistry is still not fully utilised by Nigerian dentists, irrespective of their geographical location. Only less than half of both the Southern zones and Northern zones are currently making use of Teledentistry and this supports the finding of a systematic review on Teledentistry that although it is an alternative to traditional methods of providing oral health care with great potential, its application is yet to be universal.³ The pattern seen among Nigerian dentists may not be too different from what is seen in most part of the world. Only a few countries use Teledentistry optimally and the largest experiences of Teledentistry reported were in America and Europe.³ Since Teledentistry relies on access to appropriate technology such as smartphones, computers, and reliable internet connections, access to these resources may be limited in rural or economically disadvantaged regions, hindering the widespread adoption of Teledentistry. Limited infrastructure and high set-up costs have been identified as possible challenges to the wide application of Teledentistry.¹⁵

Access to the internet during work hours may be a factor affecting the use of Teledentistry in this study. Since internet connectivity is a requirement for Teledentistry¹⁶ dentists with internet access at work are more likely to practise Teledentistry. Apart from access to technology, it has been suggested that disparity in digital literacy may also be a reason why some populations may be left behind in utilizing Teledentistry services.¹⁵ However, this may not

exactly be the case in this study because many in the group with formal computer training did not use Teledentistry, and many who made use of it, did not have any formal computer training. Some individuals with computer literacy may simply prefer using other methods that align better with their personal preferences or work style,¹⁷ and may be reluctant to adopt new methods because it might disrupt their familiar routine.

The consequences of not fully utilizing Teledentistry throughout a country can impact both patients and the healthcare system. This is because the advantage of Teledentistry in bridging the gap of poor access to dental services in remote areas and among disadvantaged populations, by providing remote consultations and preventive guidance, would be lost.

This may increase the burden on the existing oral health care services as well as contribute to the disparities in oral health outcomes.

The aspects of dentistry where Teledentistry is mostly utilised in this study are Family Dentistry, Oral and Maxillofacial Surgery and Orthodontics. This is similar to what was revealed by a systematic review on Teledentistry³ but differs from what was reported by a previous study done in Saudi Arabia, where most of the dental professionals in the study felt that Teledentistry would be suitable for use in Community Dentistry, Oral Medicine and Oral Radiology¹⁵. The results from this study give hope that Teledentistry will offer opportunities for oral health education on oral hygiene practices, dietary choices, and lifestyle modifications as well as

providing valuable initial assessments and early diagnosis of surgical and orthodontic cases in our environment. Hopefully, this will eventually lead to expanding access to oral care which has been recognised as one of the greater values of Teledentistry^{18,19}.

The preferred communication tools and the type of ICT devices used for Teledentistry by this study's participants, working at both public and private dental centres, reveal that only the basic form of Teledentistry is currently being practiced. Ideally, a setting where Teledentistry can be optimally practiced should have appropriate and adequate technology that will allow the download, storage and transfer of large files from centre to centre as well as support audio and visual functions to enable live videoconferencing.¹⁸ To practise Teledentistry optimally, there should be a computer with substantial hard drive memory, adequate RAM and a speedy processor, an intraoral video camera, a digital camera, a fax machine, a scanner and a printer.¹⁶

These would allow the exchange of information with all stakeholders, distant consultation of specialists and distant planning of appropriate interventions.²⁰

The results of this study suggest that most Nigerian dentists are currently of the opinion that Teledentistry is effective. However, there are a few concerns about its acceptability and suitability in their dental practice. Patients' privacy and the cost of telecommunications equipment are a few issues to be addressed. There is also a general opinion that there is a need for more training on Teledentistry to improve the readiness of Nigerian patients and dentists to practice Teledentistry. These concerns are similar to the limitations and barriers previously identified by a study on opportunities for Teledentistry in South Africa.²¹ It is noteworthy that these challenges are not necessarily insurmountable, and with advancements in technology, the establishment of clear regulations, and increased awareness, the utilisation of Teledentistry in our environment can improve over time, enhancing the overall delivery of dental care and improving oral health outcomes.

The tool for data generation employed in this study was intended to reach Nigerian dentists practicing in every part of the country with ease. However, only a few took the survey. The low response rate is a limitation of this study because of the negative impact it may have on the reliability and validity of its findings. The low response rate may also imply that an online method of correspondence may currently

not be the preferred communication channel of the majority of the intended study population. The implication of this on the proper uptake of Teledentistry in Nigeria may not be favourable.

CONCLUSION

It can be concluded that the use of Teledentistry among Nigerian dentists is currently low and access to Internet during work hours may increase Teledentistry utilisation. Cell phones and personal computers are commonly used in both public and private dental centres. Although many of the Nigerian dentists consider Teledentistry effective, there are a few concerns on its acceptability and suitability for use in their dental practice

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Conflict of Interest

None declared

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APPENDIX 1

Benefits and Limitations of Teledentistry: The Nigerian Experience

A. Biodata:

1. Age (in years):
2. Sex:
3. Marital status: Single, Married, Divorced, Separated
4. Religion: Christian, Muslim, African Traditional Religion, Others (please specify)
5. Cadre: House officer, Dental Officer, Junior Resident, Senior Resident, Consultant
6. University where you graduated from:
7. Year of graduation:
8. Number of years of practice:
9. Location of Practice:
10. Type of practice: Private dental clinic, General Hospital, Federal Medical centre, Teaching Hospital, Others (please specify)
11. Number of working hours per week:

B. Literacy and access to computers:

Teledentistry use for Patient Care

12. Do you know how to use a computer? Yes/ No
13. Are you computer literate? Yes/ No
14. How did you learn to use a computer? Self-taught, went to a computer school, learnt on the job, Others (please specify)
15. Do you have regular access to a computer? Yes/No
16. Where do you have access to a internet connectivity? At home/ At work
17. How many hours do spend a day on the internet for general purpose?
18. How many hours do spend a day on the internet in dental practice?
19. What is your preferred communication tool with other dental practitioners?
20. What is your preferred dental specialty for the application of Teledentistry?
21. Do you currently use Teledentistry in your practice? Yes/ No
22. If yes, what devices do you use for Teledentistry:

Which aspects of Teledentistry do you consider beneficial or challenging and your opinion on the acceptability, effectiveness and accuracy of Teledentistry in dental practice?

| S/N | Questions | Strongly agree | Agree | Undecided | Disagree | Strongly disagree |
|-----|---|----------------|-------|-----------|----------|-------------------|
| 1 | Teledentistry is more convenient than traditional dental care. | | | | | |
| 2 | Teledentistry can often be less expensive than traditional in-office dental care. | | | | | |
| 3 | Teledentistry can help to close the gap in access to care, particularly for rural and underserved populations. | | | | | |
| 4 | Teledentistry can improve patient outcomes by providing timely diagnosis and treatment of dental problems. | | | | | |
| 5 | Teledentistry can reduce the need for travel, which can be especially beneficial for families with young children. | | | | | |
| 6 | Teledentistry can be used to connect patients with specialist care that may not be available in their local community. | | | | | |
| 7 | Teledentistry appointments are often shorter than traditional appointments | | | | | |
| 8 | Teledentistry makes it possible for dentists can see more patients | | | | | |
| 9 | The cost of telecommunications equipment for Teledentistry can be a cause for concern. | | | | | |
| 10 | There could be a necessity for appropriate training for Teledentistry | | | | | |
| 11 | There could be pressure for an instant response when Teledentistry is used for patient care | | | | | |
| 12 | There could be a misunderstanding of messages sent out to other practitioners involved with patient care when using Teledentistry | | | | | |
| 13 | Privacy is a concern in Teledentistry | | | | | |
| 14 | I agree with patient management via electronic media | | | | | |
| 15 | I agree with patient management via mobile phone | | | | | |
| 16 | I approve Teledentistry for routine care of patients | | | | | |
| 17 | I approve Teledentistry for specialized care of patients | | | | | |
| 18 | Nigerian dental patients are ready for Teledentistry | | | | | |
| 19 | Nigerian dentists are ready for Teledentistry | | | | | |