

## RESEARCH ARTICLES

# Implementation of teledentistry during the COVID-19 pandemic at Bandung community health centers

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### ABSTRACT

Teledentistry has gained an increasing popularity among dentists as an alternative innovative solution to minimize the risk of the transmission of COVID-19 and other infections. Dentists at the Bandung community health center have started implementing teledentistry since the government issued a reference for dental and oral health services during the pandemic. The purpose of this study was to analyze the implementation of teledentistry in community health centers based on the references issued by the government. The population consisted of dentists who implemented teledentistry during the COVID-19 pandemic at the Bandung community health centers. There were 26 respondents as the research samples who were selected using a non-probability sampling technique. This was cross-sectional descriptive research which used an online questionnaire regarding the implementation of teledentistry based on the Technical Guidelines for Dental and Oral Health Services from the Ministry of Health of the Republic of Indonesia. The implementation of teledentistry includes teleconsultation, telediagnosis, teletriage, telemonitoring, teleeducation, communication tools, provision of prescriptions and referrals, service fees, and medical records. The data analysis was carried out by presenting the results of the teledentistry implementation, namely the types of teledentistry implemented by the dentists were teleconsultation 100%, telediagnosis 92.3%, teletriage 76.9%, telemonitoring 7.7%, teleeducation 92.3%; 100% carried out teledentistry via short messages, 76.9% had given prescriptions, and 80.7% had given referrals, 84.6% did not charge any service fee, and only 57.6% recorded medical records. The implementation of the teledentistry services during the COVID-19 pandemic at the Bandung Community Health Centers has not been optimal because the regulation has not been well socialized. In addition, there has been no legal certainty and laws governing teledentistry in Indonesia.

**Keywords:** COVID-19; community health center; dentist; teledentistry

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### INTRODUCTION

The World Health Organization (WHO) has declared COVID-19 as a pandemic since March 11, 2020.<sup>1</sup> The threat of this deadly virus spreading around the world requires continued vigilance.<sup>2</sup> Cases of COVID-19 in Indonesia have risen steadily because of the inadequacy of Indonesia's health systems to manage the virus.<sup>3</sup> The government decided to impose a lockdown during the COVID-19 pandemic, by closing all access to public facilities and transportation. Residents were advised to stay at home and isolate themselves, with the hope that the virus would not spread more widely and healing efforts could run optimally.<sup>2</sup> This regulation also had an impact on health services,

namely the appeal of telemedicine, especially to obtain dental and oral health services.<sup>4</sup> Dental and oral health services are at high risk because these services involve close human-to-human contact during dental treatment while the COVID-19 virus can spread through droplets, fomites, and contact transmission.<sup>5,6</sup>

Telemedicine is the delivery of health care via the use of electronic communication technology; it is one of the tactics employed to prevent the global spread of COVID-19. Patients and medical workers can communicate through an application without having to meet in person. Telemedicine has emerged as a viable and effective method for COVID-19 precaution, prevention, and

treatment.<sup>4</sup> Since 2012, the Ministry of Health has been developing telemedicine, which functions identically to that of third parties. Telemedicine Indonesia or (TEMENIN) is the name of the application, although the 2017 pilot project was hampered by a lack of awareness of both the use of technology and the importance of telemedicine.<sup>7</sup>

One of the health services in Indonesia that is needed by the community is Puskesmas (Community Health Center) as primary health care. Puskesmas remains a community need to overcome community dental problems during the COVID-19 pandemic.<sup>8</sup> The rate of transmission and the number of COVID-19 cases is not comparable with the level of health care facilities in responding to the pandemic quickly and accurately.<sup>5</sup> The State Minister of Health of the Republic of Indonesia issued Technical Instructions of Dental and Oral Health Services at Primary Health Facilities (FKTP) during the New Normal Adaptation Period as a guideline for providing dental and oral health services to prevent transmission and to protect health workers and the community.<sup>9</sup>

Teledentistry services, as part of telemedicine at the community health centers according to the technical instructions for dental and oral health services, are used during screening/pre-visit screening procedures of patients and follow-up of patient conditions. Teledentistry at the community health centers consists of teleconsultation, telediagnosis, teletriage, and telemonitoring as a subunit of teledentistry which has important and relevant functions to dental practice while taking into account the principles of effective communication and maintaining patient confidentiality.<sup>5</sup> Teledentistry has been proven to be beneficial for performing remote dental examinations, making diagnosis, providing consultation, planning treatment, as well as performing routine monitoring of treatment results and disease progress.<sup>10</sup>

There are 79 community health centers in Bandung City. Based on the data, 72 community health centers have dental clinics. During the COVID-19 pandemic, only 32 community health centers actively provided teledentistry services

and served the population of Bandung City which consisted of 3,831,505 people. The implementation of dental and oral health services at community health centers through teledentistry should follow the reference of Technical Instructions for Dental and Oral Health Services at FTKP during the New Normal Adaptation Period issued by the Ministry of Health of the Republic of Indonesia.<sup>5</sup> The technical guidelines from the Ministry of Health have been socialized since April 2021, which means nine months until this research was conducted, but the implementation has never been evaluated. The results of this evaluation are expectedly used as input for improving teledentistry implementation in the future.

Based on the above-mentioned explanation, the authors were interested in examining the implementation of teledentistry by dentists during the COVID-19 pandemic at the community health centers in Bandung. The aim of the study was to determine the implementation of teledentistry at the pre-visit detection, screening procedure, and follow-up/monitoring stage at the community health centers in Bandung.

## **MATERIALS AND METHODS**

This was a descriptive study which used a cross-sectional design and a survey method through an online questionnaire. The population of this study consisted of 32 dentists who implemented teledentistry during the COVID-19 pandemic at the community health centers in Bandung. The sampling technique was a non-probability sampling technique, namely accidental sampling, i.e., selecting a sample that meets certain criteria.<sup>11</sup> The questionnaires were given to the 32 respondents. A total of 26 respondents responded to the questionnaires, while the remaining did not respond until the specified time. This research was conducted from January to February 2022. The inclusion criteria of this study were dentists who performed teledentistry at a community health center during the COVID-19 pandemic and were willing to complete the questionnaire and participate in the study. The respondents who did

not fully fill out the questionnaire were excluded from the study. This research has obtained a research permit and ethical approval from the Research Ethics Commission of Padjadjaran University (989/UN6.KEP/EC/2021).

The questionnaire was developed based on two sources, namely the Circular Letter of the Minister of Health of the Republic of Indonesia Number HK.02.01/MENKES/303/2020 of 2020 concerning the Implementation of Health Services through the Utilization of Information and Communication Technology in the Framework of Preventing the Spread of Corona Virus Disease 2019 (COVID-19) and the Technical Guidelines for Dental and Oral Health Services at FTKP during the Adaptation Period of New Normal by the Directorate of Primary Dental Health Services, Ministry of Health, Republic of Indonesia in 2021.<sup>5,12</sup> The first part of the questionnaire contains an informed consent. The second part contains open-ended questions about demographic information and respondent characteristics, length of time working at the community health centers, length of time of teledentistry implementation, and the

average number of teledentistry patients per day. The third part contains 6 multiple-choice questions (yes-no) and 6 checklist questions about the implementation of teledentistry services which consist of: teleconsultation (consultation between patients and dentists or consultations between health workers), telediagnosis (gathering additional information to help establish a diagnosis), triage (priority determination of complaint handling needs), telemonitoring (monitoring the condition and severity of the patient's illness), and teleeducation (providing communication, information, and education). The fourth part contains 5 multiple choice questions (yes-no) and 5 checklist questions about teledentistry service technicalities, namely communication tools, provision of prescriptions and referrals, services, and medical records.

The validity of the instrument in this study was tested with a content validity index based on the opinions of expert panel which consisted of 5 experts,<sup>13</sup> namely 2 dentists from the Public Dental Health Sciences section of Padjadjaran University and 3 dentists at the community health

**Table 1.** Data on respondent characteristics and teledentistry implementation characteristics (n=26)

Characteristics		Frequency	Percentage (%)
Age	25 – 34 years	12	46.2
	35 – 44 years	6	23.1
	45 – 54 years	5	19.2
	55 - 64 years	3	11.5
	> 65 years	0	0
Gender	Female	22	84.6
	Male	4	15.4
Practice experience at community health center	0 – 2 years	3	11.5
	2 – 4 years	9	34.6
	> 4 years	14	53.8
Practice experience using teledentistry	0 – 6 months	8	30.8
	7 – 12 months	7	26.9
	> 12 months	11	42.3
Average teledentistry patients per day	0 – 3 person	18	69.2
	4 – 6 person	4	15.4
	> 6 person	4	15.4

centers who implemented teledentistry during the COVID-19 pandemic. The results of the validity test showed that the content validity was valid with a mean I-CVI value of 1.00. The researchers and the expert panel decided to use all the items on the questionnaire. The reliability of the instrument in this study was tested by test-retest, i.e., trying the same instrument more than once on the respondents, but at different times,<sup>14</sup> namely 2 times with a time span of 1 week on 5 respondents by calculating the value of Cronbach's alpha.<sup>15</sup> The results of the reliability test showed a Cronbach's

alpha of 0.826 and categorized in the high reliability category. The data processing was carried out using Microsoft Excel and the results of the data analysis from the implementation of teledentistry were expressed as numbers (frequency) and percentages in the form of tables and graphs.

## RESULTS

This research was conducted on dentists who implemented teledentistry at the community health centers in Bandung and the research sample consisted of 26 respondents.

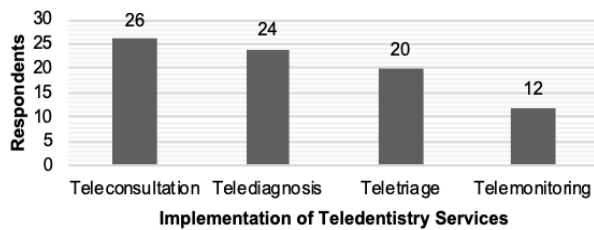


Figure 1. Implementation of teledentistry services (n = 26)

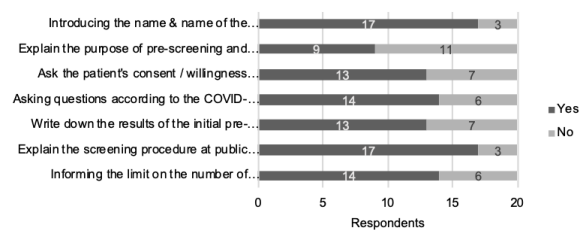


Figure 4. Implementation of teliriage (n = 20)

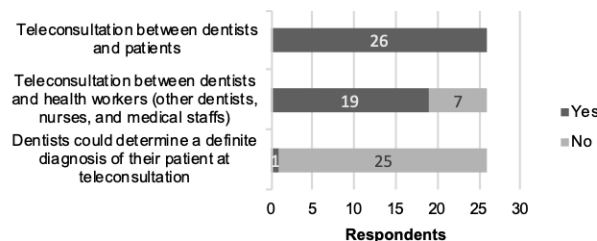


Figure 2. Implementation of teleconsultation (n = 26)

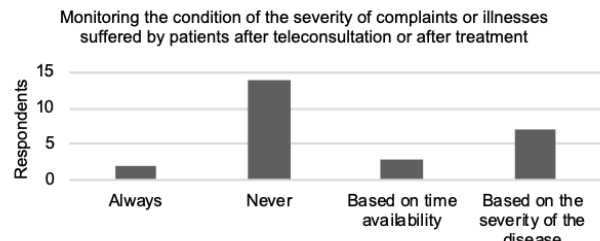


Figure 5. Implementation of temonitoring (n = 26)

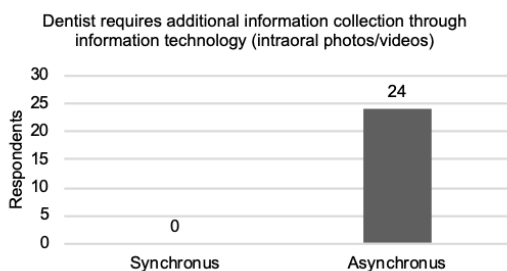


Figure 3. Implementation of teliagnosis (n = 24)

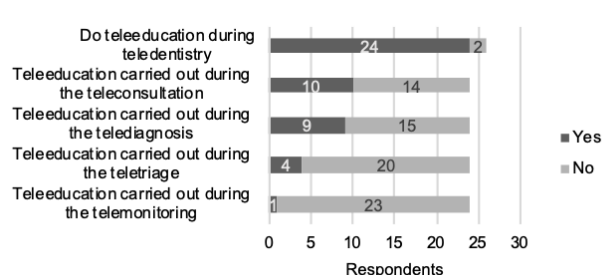


Figure 6. Teleeducation on the implementation of teledentistry (n = 26)

Table 1 shows that the majority of the dentists were from the age group of 25 – 34 years (46.2%), female (84.6%), with work experience

at the community health center for > 4 years (53.8%). Most community health centers had implemented teledentistry for > 12 months (42.3%)

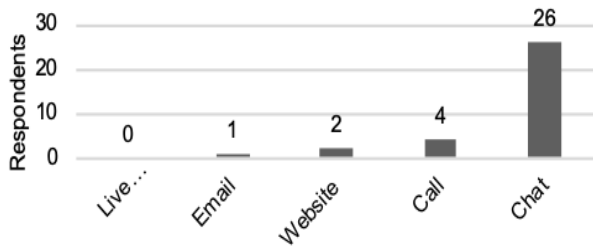


Figure 7. Teledentistry implementation communication tools (n = 26)

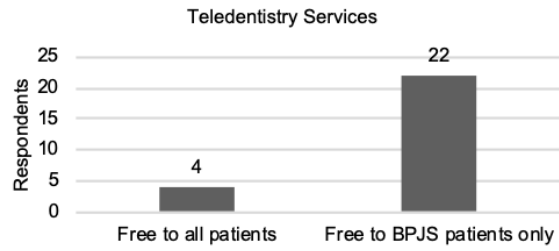


Figure 10. Teledentistry services (n = 26)

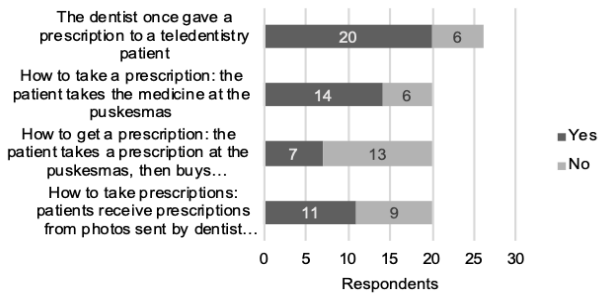


Figure 8. Prescription by dentists and how patients take prescriptions (n = 26)

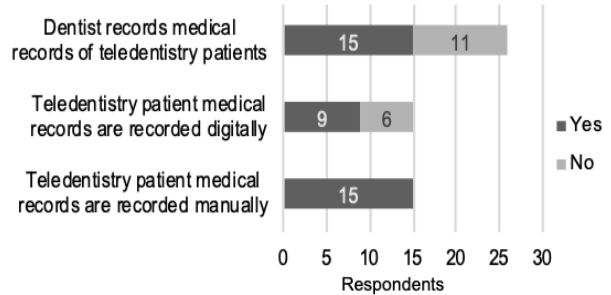


Figure 11. Recording of medical records of teledentistry patients (n = 26)

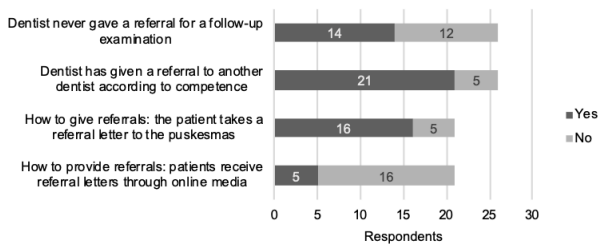


Figure 9. Provision of referral letters by dentists and how patients take the referral letters (n = 26)

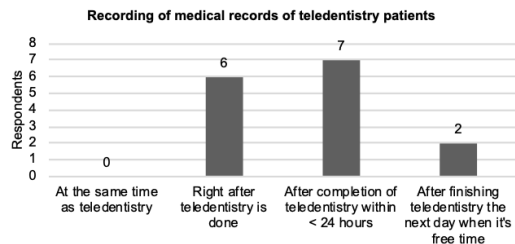


Figure 12. Recording of medical records of teledentistry patients (n = 15)

with an average of 0 – 3 patients per day (69.2%). Figure 1 shows that only 12 respondents (14.6%) completely filled out the teledentistry application (teleconsultation, telediagnosis, teletriage, and telemonitoring). Telemonitoring was used by less than half of the respondents. Figure 2 shows that teleconsultation was divided into two, namely teleconsultation between dentist and patients which was carried out by 26 respondents (100%), and teleconsultation between dentist and health workers, such as other dentists, nurses, and medical staffs, which was carried out by 19 respondents (73.08%). Based on the data, 25 respondents (96.15%) were not able to clearly

make a diagnosis of their patient during the at the time of teleconsultation. Figure 3 shows that 24 respondents performed telediagnosis following the teleconsultation stage in order to confirm the patient's diagnosis. All of these respondents (100%) conducted asynchronous telediagnosis, i.e., collecting additional information through information technology in the form of intraoral photos/videos by means of patients sending photos/videos.

Figure 4 shows the implementation of teletriage through several stages. Teletriage was implemented at 20 community health centers, comprising 7 procedures. Teletriage was

implemented by 7 dentists (35%), 8 nurses (40%), and 5 administrative staffs (25%). Not all teletriage procedures were carried out at the community health centers; the most commonly done was introduction, i.e., by mentioning the name of the dentist and the name of the health facility, as well as explanation procedure in which the dentist explained to the patient to take the COVID-19 precautions if the patient requires a visit to the community health centers (85%).

Figure 5 shows telemonitoring. Telemonitoring was always done by 2 respondents (7.7%), and most of the respondents performed telemonitoring based on the severity of the disease (26.92%). Graph 6 shows the teleeducation data. The data show that 24 respondents (92%) implemented teleeducation. In addition, teleeducation was mostly done during teleconsultation (41.7%) and telediagnosis (37.5%). Figure 7 shows the main communication tool used by all the respondents in the implementation of teledentistry. Based on this figure, all the respondents (100%) used chat or WhatsApp. In addition, other communication tools used by the respondents in the implementation of teledentistry are as follows: 4 respondents used telephone (15.39%), 2 respondents used the were 2 respondents (7.69%), and 1 respondent used email (3.84%).

Figure 8 shows that 20 respondents (76.92%) gave prescriptions to teledentistry patients. The most common way of giving prescriptions was by asking patients to take drugs at the community health center (70%). Graph 9 shows that 14 respondents (53.85%) gave referrals for a follow-up examination, and 21 respondents (80.77%) gave referrals to a dental specialist. The most common way of giving a referral was by asking patients to take the referral at the community health centers (76.19%). Figure 10 shows that teledentistry services were provided free of charge to all patients in 22 community health centers (84.62%), regardless of whether they were patients with Health Insurance (BPJS) or patients without BPJS. Meanwhile, at 4 community health centers (15.38%), teledentistry services were provided free of charge only to BPJS patients, but administrative

fees were charged to patients without BPJS. In addition, 15 respondents (57.69%) kept medical records, as seen in Figure 11 and 12. A total of 15 respondents (57.69%) added medical notes to the patients' medical records manually, while only 9 respondents (34.62%) added medical notes digitally. 7 respondents (47%) added medical notes to the patient medical record within 24 hours after teledentistry was finished.

## DISCUSSION

Most of the dentists who performed teledentistry in this study were female dentists, aged 25 – 34 years old, with more than 4 years of work experiences at the community health centers. The work experiences showed that these dentists had the ability to make adjustment to the implementation of dental and oral health services for patients. Most dentists had implemented teledentistry for more than 1 year, in accordance with the time when the instructions for telemedicine were issued by the Minister of Health of Republic Indonesia as a reference in the provision of health services by utilizing information and communication technology to prevent the spread of Corona Virus Disease 2019 (COVID-19).<sup>5,16</sup> This teledentistry service can be used by patients to consult with a dentist without having to meet face-to-face.<sup>17</sup>

The average number of teledentistry patients per day was only 3 patients. This might be because of two reasons, i.e., teledentistry services at the community health centers were allocated a limited time according to the service schedule at the community health centers and there was a lack of human resources for dental and oral health services. The main task of dentists is to provide dental and oral health services at health care facilities including promotive, preventive, curative, and rehabilitative activities to improve public health and foster community participation in the context of self-reliance in the field of dental and oral health.<sup>18</sup>

Teledentistry is the use of health information technology and telecommunication for dental and oral healthcare, consultation, education, and public awareness with the aim of improving dental and

oral health.<sup>19</sup> Teledentistry system is a treatment used during the COVID-19 pandemic to prevent exposure of health care workers and patients to COVID-19 and asymptomatic carriers.<sup>20</sup> The implementation of teledentistry services consists of teleconsultation, telediagnosis, teletriage, telemonitoring, and teleeducation.<sup>5</sup> Regulations on the use of teledentistry during a pandemic in Indonesia are regulated in Perkonsil Number 74 of 2020 concerning Clinical Authority and Medical Practice through Telemedicine during the Corona Virus Disease 2019 (COVID-19) Pandemic in Indonesia.<sup>9</sup>

Dentists who provide teledentistry services to patients are responsible for the health services provided.<sup>5</sup> The results showed that all the dentists at the community health centers had carried out teleconsultation, starting from the pre-visit detection and screening procedure of patients. Screening in the services through teledentistry is important to identify whether patients can be treated or diagnosed through consultations or interviews through information technology media such as telephone or chat.<sup>5</sup>

The results of the research showed that not all dentists carried out teleconsultation between dentists and health workers. Teleconsultation between dentists and health workers is usually carried out if needed to obtain supporting data, such as when consulting about patient data with nurses, discussing the results of patients' dental x-rays, and referring patients. Communication between dentists and other health workers, such as other dentists, nurses and other health workers is important because a lack of communication can cause mistakes in deciding treatment plans or in diagnosing patients' illnesses.<sup>21</sup> Other studies have shown that teleconsultation is very helpful for medical personnel to consult with colleagues in handling cases.<sup>22</sup>

The results showed that, in the teledentistry implementation at the teleconsultation stage, almost all the respondents could not clearly make a diagnosis of the patient. The dentists still required a physical examination based on the patient's complaints to make a diagnosis.<sup>23</sup>

They were not allowed to make a direct contact with patients during the COVID-19 pandemic, for example when examining a painful tooth. They had to carry out the next stage of teledentistry to make the patient's diagnosis, namely telediagnosis, in which the dentist could use a camera/photo of the patient's teeth to make a diagnosis.<sup>5</sup> Telediagnosis as the second part of teledentistry is considered very effective to help make a diagnosis during the COVID-19 pandemic because determining the prognosis to making a diagnosis can also be done by utilizing advanced technology in the form of images or digital information.<sup>24</sup> This statement is in accordance with the results of the study, in which 24 dentists carried out asynchronous telediagnosis by collecting additional information through information technology in the form of intraoral photos/videos sent by the patients.

The results showed that not all the dentists at the community health centers implemented the teletriage stage. Based on the reference for dental and oral health services from the Ministry of Health of the Republic of Indonesia during the adaptation period for new normal, teletriage should be carried out through several procedures, i.e., introducing the name of the health facility, explaining the purpose of pre-screening, and explaining the possibility of information leakage, seeking the patient's approval or willingness verbally, asking questions according to the screening guidelines during the COVID-19 pandemic, taking notes of the results of the pre-screening in the medical record, explaining the screening procedure at the community health centers and obligation to implement the COVID-19 precautions, and informing the maximum number of companions allowed.<sup>5</sup>

Based on the results of the study, not all the community health centers implemented the teletriage procedure. The teletriage procedures that were commonly carried out were introduction, i.e., by mentioning the name of the dentist and the name of the health facility and screening explanation, i.e., by explaining the obligation to take the COVID-19 precautions if the patient requires a visit to the health centers. On the other hand, the procedure rarely carried out by the community health centers

were explaining the purpose of pre-screening and the possibility of information leakage. In fact, the procedure of explaining the purpose of pre-screening is important to help patients understand the importance of the screening procedures before visiting the community health centers to prevent COVID-19 transmission.<sup>8</sup> Meanwhile, the procedure of explaining the possibility of leakage of patient information is also important because the teledentistry services through information and communication technology are prone to data leakage to irresponsible parties.<sup>25</sup> Another study stated that teletriage or screening as part of teledentistry is very effective if it is carried out in stages, starting with pre-visit screening, followed by screening when the patient needs to visit the community health center in order to get information about the patient's health condition before receiving health services health care according to the priority scale based on the needs and the level of risk of exposure to COVID-19 infection to health workers, and the provision of referrals and drug prescriptions.<sup>26</sup>

Another use of teledentistry is to carry out follow-up consultations within a period of 6 months, also known as telemonitoring.<sup>27</sup> Based on the results of the study, only 2 dentists always carried out telemonitoring. In fact, it is necessary to improve telemonitoring in its implementation at the community health centers because this stage is useful for monitoring the condition and severity of the patient's complaints or illnesses to know the progress of the patients' recovery, or if the patient's condition worsens, follow-up actions can be taken immediately. The use of teledentistry not only involves technology, but it is also a set of clinical processes with the aim of controlling the severity of the patient's illness.<sup>28</sup> Monitoring the progress of a patient's disease means providing quality services. The quality of health services, either poor or good quality, will affect the level of patient satisfaction when the patients provide responses and assessments of the quality of these health services.<sup>29</sup>

Another health service that can be done through teledentistry is teleeducation which comprises communication, information, and

education consultation.<sup>30</sup> Teleeducation can be provided during teleconsultation, tediagnosis, teletriage, and telemonitoring. Based on the results of the study, 24 dentists had conducted teleeducation in the implementation of teledentistry, and teleeducation was mostly carried out at the teleconsultation and tediagnosis stages. Teleeducation is a form of health promotion to provide health-related information, such as a healthy lifestyle. In fact, teleconsultation services can be carried out not only by dentists, but also by other competent health workers in accordance with their authority.<sup>30</sup>

Teledentistry is usually carried out in the form of an online mode of writing, voice, and/or live video to obtain the information needed to establish a diagnosis, as well as to treat patients in accordance with the applicable statutory provisions.<sup>16</sup> The results showed that all the dentists at the community health centers have used the online mode of writing as a communication tool for the implementation of teledentistry, namely using chat or WhatsApp messages. Meanwhile, telephone, website, email, and video calls were only used by the dentists as additional communication tools in accordance with the diagnosis in teledentistry.<sup>31</sup>

Dentists have the authority to give prescriptions to patients in accordance with the diagnosis made through teledentistry.<sup>5</sup> The results showed that 20 of 26 dentists had prescribed drugs to patients and most dentists gave prescriptions by asking patients to come directly to the community health centers to take the drugs. In addition, dentists can provide prescriptions electronically if the drug is not available at the community health centers. Electronic prescribing can be done in a closed or open way. The closed electronic prescribing is done through an application from a dentist to a pharmaceutical service facility, while the open electronic prescribing is done by giving an electronic prescription to a patient, then the patient takes to prescription to a pharmaceutical service facility. However, the prescription is an open electronic prescription which requires an electronic prescription identification code that



can be used by health care facilities to check the authenticity and validity.<sup>12</sup> Dentists who prescribe drugs electronically must be responsible for the prescriptions and effects that may arise from the drugs prescribed in the electronic prescriptions. Copies of electronic prescriptions must be kept in printed and/or electronic form as part of the medical record document.<sup>5</sup>

Dentists also have the authority to issue referrals for further examination or treatment to laboratories and/or other health care facilities according to the results of patient management in the implementation of teledentistry.<sup>12</sup> Based on the research results, 21 dentists gave referrals to patients, either referrals to laboratories or to other dental specialists according to their competence. Most patients took the referrals by visiting the community health centers directly, but some referrals were sent via online media.

The results of teledentistry must be added into the medical records in accordance with the provisions of the legislation.<sup>32</sup> Based on the results of the study, only 15 dentists added notes to the medical records of the teledentistry patients, while 11 other dentists did not add notes to the medical records during the teledentistry implementation. For the patients whose results of the teledentistry were not added into the medical record, the dentists said that this was done to teledentistry patients, while at the screening stage, the patients who required further clinical care had to visit the community health center. However, it is important to note because the dental practice regulations have mandated that doctors and dentists who implement teledentistry are required to add notes to medical records, both manually in the form of written medical records and electronically in the form digital medical records; the medical records are then stored in the health care facilities in accordance with the provisions of the legislation.<sup>28</sup>

Digital medical records of teledentistry patients are considered easier for medical personnel to access patient data to determine further treatment actions that should be taken.<sup>17</sup> The results showed that only 9 dentists added

notes to the medical records digitally and most of them did it manually. This is because adding notes to the medical records manually is considered easier. The dentists did not prefer the digital medical records to reduce the risk of leakage of patient information because digital medical records do not work independently, but dentists are involved and have access to patient information. This is the reason why there is a possibility that digital medical records can cause leakage of medical information.<sup>33</sup>

In terms of when the study respondents added notes to the medical records of the teledentistry patients, most of them did it within 24 hours after the teledentistry session had ended. This, however, is not appropriate when viewed based on the Regulation of the Minister of Health Number 269 concerning Medical Records, which states that notes should be added to medical records immediately after a patient has received services. Unfortunately, until now there has been no regulation concerning when notes should be added into medical records specifically for teledentistry patients.<sup>34</sup>

Most of the teledentistry services were provided for free by the community health centers, both for patients with BPJS and non-BPJS, but some community health centers required their patients to pay for the registration fees to get teledentistry services. The results of another study stated that teledentistry services are more convenient than direct consultations.<sup>35</sup> This is evident by the results of the study in which patients agreed to pay for the fees to get teledentistry services as determined by the community health centers because it was affordable as they had to pay only for the registration fee. Until now, Indonesia has no government regulation regarding the standard of teledentistry services.<sup>35</sup>

Based on the abovementioned explanation of the research results, several obstacles in the implementation of teledentistry in the community health centers should be anticipated by the government in the future, so it is necessary to issue clearer regulations and conduct more teledentistry-related trainings, so as to improve the quality of the

services. In addition, during the implementation of teledentistry, dentists expectedly can comply with the technical guidelines issued by the Ministry of Health of the Republic of Indonesia. This aims to protect dentists and staffs at the community health centers from the transmission of COVID-19 infection and other infections to prioritize patient safety by protecting the right and obligation of the patients, and to provide good quality services. This research expectedly provides benefits for the respondents to gain better understanding about each of the procedures for implementing teledentistry according to the technical guidelines issued by the Ministry of Health of the Republic of Indonesia.

This evaluation was carried out nine months after the reference was first socialized. Future teledentistry implementations need to be evaluated periodically to monitor any obstacles and lackness in its implementation. In addition, patients expectedly can also receive a teledentistry service system as well as benefits and satisfaction from the services.

The study has some limitations. It used an online questionnaire, and it was conducted during the pandemic so it was difficult to reveal the reasons why the respondents did not implement teledentistry in accordance with the technical guideline. It is recommended for future research to employ field observations and direct interviews with respondents to get more detailed data.

## CONCLUSION

The implementation of teledentistry services during the COVID-19 pandemic at the Community Health Centers in Bandung has not been optimal because the regulation has not been well socialized. Besides, there have been no legal certainty and laws governing teledentistry in Indonesia.

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