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**MASTER OF DEVELOPMENT COMMUNICATION**

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**DIGITAL HEALTH COMMUNICATION:  
NARRATIVES OF HEALTH PATIENTS USING TELEMEDICINE FOR PRIMARY  
HEALTHCARE IN LUCENA CITY, PHILIPPINES**

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27 May 2024

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### **DIGITAL HEALTH COMMUNICATION: NARRATIVES OF HEALTH PATIENTS USING TELEMEDICINE FOR PRIMARY HEALTHCARE IN LUCENA CITY, PHILIPPINES**

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**Acceptance Page:**

This paper prepared by **KORINA MARIE N. ALIBUYOG** with the title: “**DIGITAL HEALTH COMMUNICATION: NARRATIVES OF HEALTH PATIENTS USING TELEMEDICINE FOR PRIMARY HEALTHCARE IN LUCENA CITY, PHILIPPINES**” is hereby accepted by the Faculty of Information and Communication Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Program.

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## **Biographical Sketch**

The author, Korina Marie N. Alibuyog, was born on September 19, 1994 in Lopez, Quezon. She is the second child among the three children of her parents, Fernando B. Alibuyog and Merlita N. Alibuyog. Her late father was a forester, and her mother is a registered social worker who has retired already from service.

She graduated from Manuel S. Enverga University Foundation (MSEUF), Lucena City in 2015, under the program Bachelor of Science in Mass Communication. She finished both her secondary and elementary education from Sacred Heart College, also in Lucena City.

In 2016, she successfully passed the Civil Service Examination (Professional). From the same year up to 2021, she worked in a national and local government office where she was able to attend several trainings and seminars. Currently, she is a college instructor at her alma mater, MSEUF, under the College of Arts and Sciences (CAS). She primarily teaches Communication and Language courses. Apart from her role as a teacher, she is also one of the advisers of the CAS Department Student Council for academic year 2023-2024.

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And above all, to the Almighty God, for blessing me with strength and wisdom, for helping me surpass every difficulty, and for continuously guiding me throughout this journey.

***To God be the glory!***

## **Dedication**

I would like to sincerely dedicate this piece of achievement to the most special people in my life and to those whom I believe will highly benefit from this research.

First, to my late father, Fernando B. Alibuyog (+) and brother, Miguel Carlos N. Alibuyog (+), who are the proudest angels I have in heaven.

Second, to my mother, Merlita N. Alibuyog and younger sister, Katrina Rose N. Alibuyog, who are my source of strength and inspiration in doing the things that help me grow both personally and professionally.

Third, to all Filipinos, for they deserve to have an equal access to a quality healthcare;

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## **Abstract**

This study analyzed narratives of health patients who have used telemedicine during the Covid-19 pandemic starting 2020. Focusing on the relation between society and technology, it is underpinned by the social determinism and the social construction theory and is qualitative in nature. Results showed that the participants used telemedicine during the pandemic because they needed to continuously connect with their doctors. They became familiar with telemedicine in different ways - it was advised by the doctor, it was seen on Facebook, or it has become prevalent even at work and in their Church. From the conventional personal visits to the doctor in their clinics or in the hospital, participants needed to learn and adapt to online medical treatment. Some of them who never had Viber (an online messaging app) created one while some extended the use of their Messenger accounts to constantly talk to their doctors. Because telemedicine is digital in nature, it lacks physical examination of patient by the doctor. Hence, the participants were compelled to become technology savvy and more diligent in monitoring their health by carefully taking note of their symptoms, such as their oxygen and heart rates. The participants also had to adjust to the other demands of technology for health consultation. Nonetheless, the participants have apparently embraced telemedicine as they claim that they are satisfied with its use. Even after pandemic, they continue to use telemedicine and now view it as a good alternative for basic healthcare because it is more convenient, faster, safer, and in many cases, cheaper. So, while telemedicine encouraged them to use technology, they also chose what technology to use or a combination thereof that suited their needs. Further, they improvised the technology to overcome any limitations that would help them transact with their doctors or nurses in the most efficient and effective ways.

Keywords: Covid 19, online medical consultation, alternative medical process, social media, machines and medicine

# Chapter I

## INTRODUCTION

### Rationale

In 2018, the World Health Assembly Resolution on Digital Health recognized the value of digital technologies in advancing universal health coverage and the Sustainable Development Goals. The World Health Organization (2021) itself believes that “information and communications technologies present new opportunities and challenges for the achievement of all 17 Sustainable Development Goals - digital health should be an integral part of health priorities and benefit people in a way that is ethical, safe, secure, reliable, equitable and sustainable.”

Digital technologies of all kinds have become essential resources in primary care and their uptake is growing, with the past decade seeing rapid integration of technology in a range of areas that support primary care and essential public health functions. (World Health Organization, 2018).

The health space is increasingly reliant on technology and the repurposing of health data by technology companies seeking health-related insights. The main uses of technology in the health sector include mobile health, health information technology, precision medicine, predictive analytics, telehealth and telemedicine, consumer tech, AI-enabled check-ups, and observatories that map epidemics (Digwatch, n.d.).

Telehealth programs overcome physical barriers to provide patients and caregivers access to convenient medical care. Healthcare systems with telehealth sustain the continuity of outpatient patient care during this pandemic—in the midst of

“stay-at-home” orders and physical distancing measures, while reducing community and nosocomial spread (Wosik, 2020).

Moreover, pervasive Internet use has opened up a new perspective on healthcare by transcending the logic of face-to-face care, as has been seen during the Covid 19 pandemic. Among digital or electronic health interventions (e-health), there is growing interest in and use of telemedicine as an alternative to face-to-face care (Oliveira, 2020 as cited in United Nations, 2021).

Telemedicine is defined by the World Health Organization (2010) as “the delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers,” (Tan et al., 2020).

Four elements are germane to telemedicine: 1) Its purpose is to provide clinical support; 2) It is intended to overcome geographical barriers, connecting users who are not in the same physical location; 3) It involves the use of various types of ICT; and 4) Its goal is to improve health outcomes (World Health Organization, 2010).

However, according to Stephanie Watson (2020), the downsides of telehealth include: (1) it isn't possible to do every type of visit remotely; (2) security of personal health data transmitted electronically is a concern; and (3) some services may not be fully covered, leading to out-of-pocket costs.

Further, Fernandez and Oviedo (2010) as cited in United Nation publications (2021) say that access to these services requires digital infrastructure, technological

capabilities among members of the system, and financial resources to cover the costs of digitalization and the consequent expansion of demand.

Also, according to an American study, the increase in telemedicine was greatest among patients in low-poverty counties (about 48 visits per 10,000 people compared to 15 visits per 10,000 people in high-poverty counties) and amongst patients in metropolitan areas (approximately 50 visits per 10,000 people versus about 31 visits per 10,000 people in rural areas) (Hani, 2021).

In the Philippines, the growth in teleconsultations came about after an organization collaborated with the Philippines' Department of Health (DOH) and the National Privacy Commission in providing free telemedicine services, which aided in reducing health center occupancy and preventing the spread of COVID-19 (Hani, 2021).

Telemedicine provider Medgate saw a 170% increase in teleconsultations in Philippines in 2020, with an 80% case resolution rate. This was the onset of the pandemic. Since Medgate partnered with the DOH and the National Privacy Commission, it has delivered almost 70,000 virtual consultation services to patients across the country (Gunasegaran, 2021).

While this sounds promising, the effectiveness and sustainability of telemedicine as a means to deliver basic health services are both unclear. So far, there have been few studies locally on the use and views on the use of telemedicine (Lim et al., 2021; Noceda et al., 2022).

## **The Research Problem**

This study primarily aims to answer the question: How do the health patients view and use telemedicine for primary healthcare in Lucena City? Specifically, it seeks to answer the following:

1. Why and how did the patients communicate using telemedicine?
2. How do they view communication via telemedicine vis-à-vis consulting face-to-face?
3. How do they view telemedicine as an alternative for healthcare?
4. How can telemedicine be enhanced as alternative health communication?

## **Significance of the Study**

Research and findings about the use of digital technology in providing basic healthcare services can benefit the following:

First, the Filipino community, this can give awareness about the modern or alternative ways on how they could avail basic healthcare services;

Second, the Department of Health, this can serve as basis in improving existing policies regarding online medical consultations;

Third, medical professionals and practitioners, this can enhance their strategies and practice in delivering their service to their patients online; and

Lastly, future researchers, this can serve as helpful reference for conducting similar or further studies.

## **Chapter II**

### **REVIEW OF RELATED LITERATURE**

Virtual communication through digital technology to connect people without the need to be at the same place and time became more useful when pandemic hit the global community in starting 2020-2021.

The following discusses the time when telemedicine started to be deployed and when people began to use it during the Covid-19 Pandemic. It also includes discussions about its advantages and disadvantages, and how people perceive it as a communication technology for development, specifically in primary healthcare.

#### **Rise of Telemedicine**

Since the year 1990 new technologies – notably, the Internet – began to have a revolutionary impact. As the technologies became more advanced and assimilated in all sectors in society, these technologies have shown remarkable value for health (World Health Organization, 2018).

Digital technologies of all kinds have become essential resources in primary care. And their uptake is growing, with the past decade seeing rapid integration of technology in a range of areas that support primary care and essential public health functions. (World Health Organization, 2018).

The World Health Organization (2021) believes that “information and communications technologies present new opportunities and challenges for the achievement of all 17 Sustainable Development Goals - digital health should be an integral part of health priorities and benefit people in a way that is ethical, safe, secure, reliable, equitable and sustainable.”

Moreover, pervasive Internet use has opened up a new perspective on healthcare by transcending the logic of face-to-face care, as has been seen during the pandemic. Among digital or electronic health interventions (e-health), there is growing interest in and use of telemedicine as an alternative to face-to-face care (Oliveira, 2020 as cited in United Nations, 2021).

Digital tools are giving providers a more holistic view of patient health through access to data and giving patients more control over their health. Digital health offers real opportunities to improve medical outcomes and enhance efficiency (US Food and Drug Administration, 2020).

Providers and other stakeholders are using digital health technologies in their efforts to: (1) reduce inefficiencies, (2) improve access, (3) reduce costs, (4) increase quality, and (5) make medicine more personalized for patients (US Food and Drug Administration, 2020).

In a study conducted by Senbekov et al. (2020), they argued that using smart and wearable devices, physicians can remotely monitor various health parameters. Patients may not need to be hospitalized or visit a doctor that results in a considerable decrease in healthcare costs.

Telemedicine is defined by the World Health Organization (2010) as “the delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of healthcare providers,” (Tan et al., 2020).

**Figure 1. Telemedicine Process Lifecycle (Anthony Jr., 2020)**

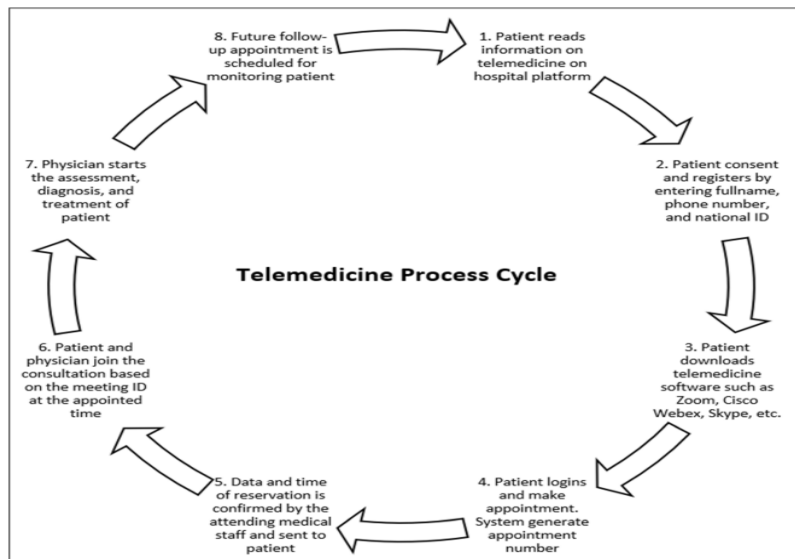


Figure 1 presents the telemedicine process cycle starting with the patients reading information regarding telemedicine after which the patient consent and registers (Anthony, Jr., 2020). The cycle ends when the physician completed his assessment, diagnosis, and treatment of patient and scheduled for the next online consultation for patient's health monitoring.

### **Telemedicine During the Pandemic**

During the current COVID-19 pandemic, the World Health Organization has asked nations to increase their preparedness, suggesting the following three priorities: 1) all countries must prioritize protecting healthcare workers; 2) communities must actively work on ways to protect people who are most at risk of severe disease; and 3) the global community must protect the most vulnerable countries. Thus, telemedicine is perfectly positioned to help achieve the objectives for all three priorities, as follows: 1) telemedicine use actively protects healthcare workers by reducing nonacute patient-provider interactions; 2) it will assist

communities with protecting high-risk individuals by reducing their exposure to hospitals and other healthcare locations that may be frequented by those with acute COVID-19 infection; and 3) countries or regions with ample healthcare staffing and resources will be able to help countries or regions with limited access to staffing and/or resources by providing TMS-based services within an established, agreed-upon framework (Chauhan et al., 2020).

**Table 1.** Summary of the level and features of telemedicine uptake in the various continents and countries worldwide during Covid-19 pandemic (Omboni et al., 2022)

Continent/Country	Implementation level	Main barriers to implementation	Main services (in order of importance)	Insurance reimbursement	Specific telehealth policies at a national level
Africa	Low	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Infrastructure</li> <li>• Connectivity</li> <li>• Interoperability</li> <li>• General and digital illiteracy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Social (chat)</li> <li>• E-mail</li> </ul>	No	No
Canada	Medium	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Connectivity</li> <li>• Interoperability</li> <li>• Reimbursement</li> <li>• Regulatory restrictions</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• Telephone</li> <li>• RPM</li> </ul>	Yes (partial)	No
United States of America	Medium/High	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Infrastructure</li> <li>• Digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• E-mail</li> <li>• RPM</li> </ul>	Yes (partial)	Yes (partial)
Latin America	Low	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Privacy</li> <li>• Regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• Telephone</li> </ul>	No	Yes (partial)
Western Asia	Low/Medium	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Infrastructure</li> <li>• General and digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> </ul>	No	No
China	High	<ul style="list-style-type: none"> <li>• General and digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> </ul>	No	No
Japan	Medium	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Interoperability</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> <li>• RPM</li> </ul>	No	Yes (partial)
Australia	Medium	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> </ul>	Yes (partial)	Yes (partial)
Germany	Medium/High	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Education</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> </ul>	Yes (partial)	Yes
Hungary	Low	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• E-mail</li> </ul>	Yes (partial)	No
Italy	Low/Medium	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Interconnectivity</li> <li>• Reimbursement</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> <li>• RPM</li> </ul>	No	Yes (partial)
Russia	Low	<ul style="list-style-type: none"> <li>• Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• RPM</li> </ul>	No	No
Switzerland	Medium/High	<ul style="list-style-type: none"> <li>• Interconnectivity</li> <li>• Security</li> </ul>	<ul style="list-style-type: none"> <li>• Video</li> <li>• RPM</li> </ul>	Yes (partial)	No
United Kingdom	Medium	<ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Digital literacy</li> </ul>	<ul style="list-style-type: none"> <li>• Telephone</li> <li>• Video</li> </ul>	No	No

During the COVID-19 outbreak, several steps have been made forward in adopting telemedicine. Although some pre-existing barriers to the pandemic were

removed, important gaps still need to be filled in to favor large-scale implementation of telemedicine (Figure 1). Technological, infrastructural, educational, economic, and legal issues still undermine the long-term sustainability of telemedicine beyond the COVID-19 pandemic (Omboni et al., 2022).

**Table 2.** *Progress made in the implementation of telemedicine during the Covid-19 pandemic and gaps to be filled in (Omboni et al., 2022)*

Progress	Gaps
<ul style="list-style-type: none"> <li>Several countries relaxed laws and regulations pertaining to the use of telemedicine (licensing of healthcare operators, privacy, reimbursement)</li> </ul>	<ul style="list-style-type: none"> <li>Several countries are still affected by the lack of policy to legislate telemedicine</li> </ul>
<ul style="list-style-type: none"> <li>Many countries have issued national guidelines and protocols guiding the implementation of telemedicine in the community</li> </ul>	<ul style="list-style-type: none"> <li>Current guidelines are often generic and do not provide practical recommendations for the routine clinical use of telemedicine (target population, types of application, remuneration, etc.)</li> <li>There is no integration and standardization at an international level among protocols and guidelines</li> </ul>
<ul style="list-style-type: none"> <li>Insurance companies and national authorities started reimbursing expenses for patient care delivered via telemedicine</li> </ul>	<ul style="list-style-type: none"> <li>Health reimbursement plans may not be available in some countries and may not be provided to all the different social strata of the population</li> <li>Funding frameworks for telemedicine in the context of public healthcare must be defined</li> </ul>
<ul style="list-style-type: none"> <li>Increased awareness of the usefulness of telemedicine among healthcare professionals and patients</li> </ul>	<ul style="list-style-type: none"> <li>Illiteracy in low- and middle-income countries reduces the awareness about the importance of telemedicine</li> <li>Clinicians' unwillingness to adopt telemedicine persists in some cases and needs to be overcome with adequate training and education</li> </ul>
<ul style="list-style-type: none"> <li>Increased adoption of telemedicine solutions (particularly televisit and telemonitoring) in the majority of countries worldwide</li> </ul>	<ul style="list-style-type: none"> <li>The technological and infrastructural requirements and the high costs of telemedicine bear the risk of widening inequality among countries with different income levels and across various population subgroups</li> </ul>
<ul style="list-style-type: none"> <li>More older patients with chronic diseases moved online compared to pre-Covid-19</li> </ul>	<ul style="list-style-type: none"> <li>Tailored solutions according to users' features must be envisaged to scale up the use of telemedicine</li> </ul>
<ul style="list-style-type: none"> <li>Increased use of applications based on AI that may improve diagnostic accuracy and treatment, transforming healthcare management from passive to active or proactive</li> </ul>	<ul style="list-style-type: none"> <li>Most advanced solutions may not be affordable to all subjects and may be available only in high-income countries</li> </ul>
<ul style="list-style-type: none"> <li>Increased integration of telemedicine with traditional (in-person) healthcare services</li> </ul>	<ul style="list-style-type: none"> <li>Quality of care in telemedicine is not always optimal compared to in-person care</li> <li>Heterogeneity of available solutions and technologies do not allow cross-platform interoperability and easy data exchange</li> <li>Reorganization of the healthcare network is to switch to outpatient remote management</li> </ul>

Some of the uses of telemedicine for patients were control and triage during the outbreak of COVID-19 pandemic, self and distance monitoring, treatment,

patients after discharge in health centers (follow-ups) and implementation of online health services.

Healthcare workers and clinicians with mild symptoms could still work remotely with patients, facilitate quick access to medical decision making, seek second opinion for severe cases of patients, exchange cross-border experiences, and offer teleradiology and online trainings for health workers (Monaghesh & Hajizadeh, 2020).

Based on the study conducted in the USA, phone calls and electronic health records (EHR) can facilitate screening or treating a patient without the need for in-person visits and improve decision making process among healthcare teams in an ambulatory and urgent care. Generally, the impact of telehealth during the COVID-19 pandemic in preventing morbidity and avoiding of presence the public from high-risk areas such as hospital premises was significant (Monaghesh & Hajizadeh, 2020).

**Figure 2.** Visit volumes increase in telemedicine urgent care (VUC) and nonurgent care (non-VUC) and decrease in in-person care. Each bar represents 1 day. Key dates are annotated above corresponding bars. COVID-19: coronavirus disease 2019; ED: emergency department (Mann et. al, 2020)

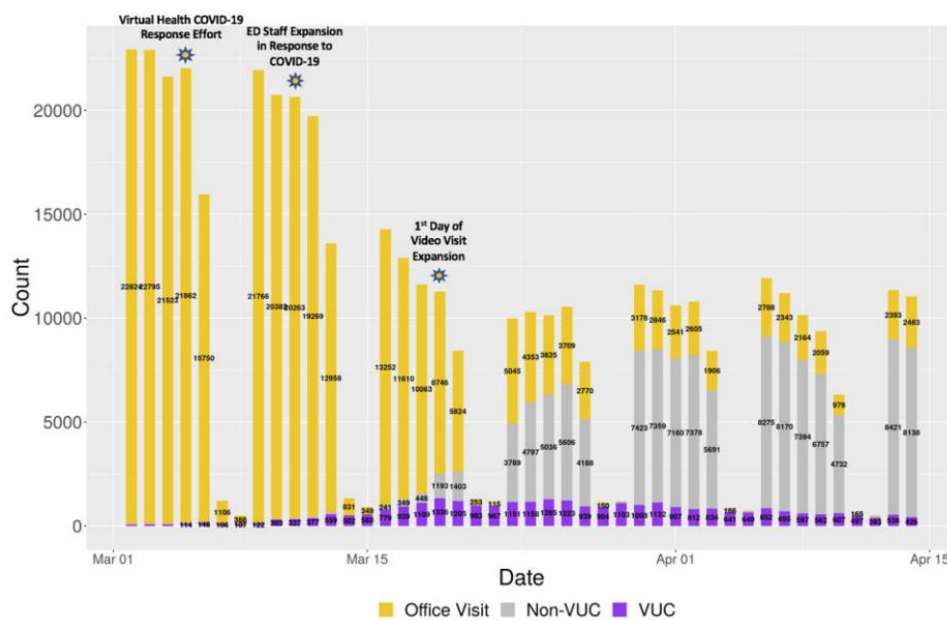


Figure 2 shows that a mass migration to telemedicine has taken place during March and April 2020 in the US, co-occurring with a decline of over 80% in in-person visits. Telemedicine urgent care volume grew from 82 visits on March 4, 2020 to 1336 visits after 15 days. This demonstrates the transformational impact of COVID on telemedicine-driven healthcare at the epicenter of the pandemic (Mann et al., 2020).

### **Advantages and Disadvantages of Telemedicine**

In their literature review, Hwei and Octavius (2021) discussed the advantages of telemedicine from three different perspectives: from the patients, from medical personnel, and from hospitals. They pointed out that telemedicine can be used to provide information for both the patients and the general public.

Through telemedicine, patients will be able to understand the nature of their disease, prognosis associated with the disease, the effect that they might experience in undergoing treatment, and the reasons why healthcare professionals ask them to do certain examinations (Hwei and Octavius, 2021).

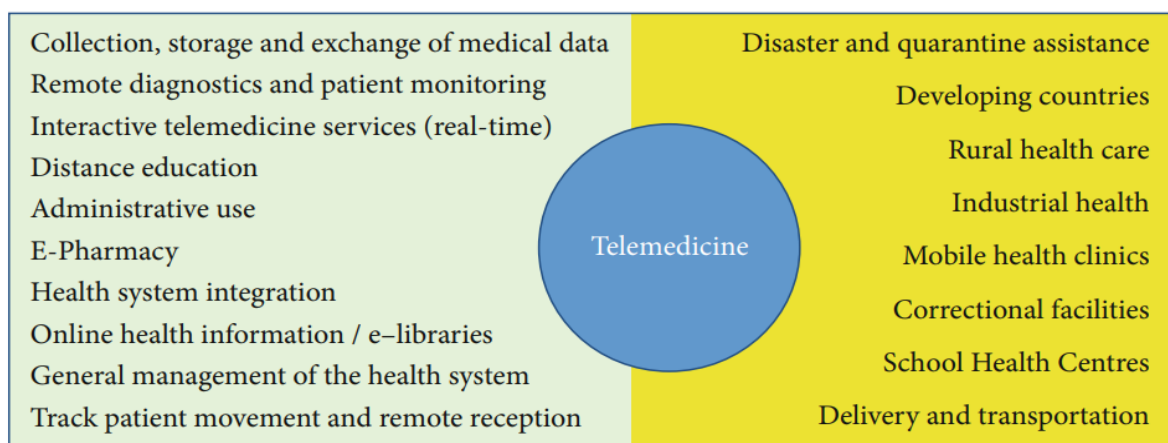
Hwei and Octavius also argued that healthcare professionals were satisfied with the use of telemedicine in specialized palliative care because they were able to interact with each other and keep the conversation open both ways between the patients and themselves. Lastly, by using the teleconsultation approach, the hospital and other healthcare facilities were able to give advice for critical patients without waiting for one specific specialist to respond to the call. They had better utilization of their resources, reduced mortality and morbidity, and reduced patient movement (Hwei and Octavius, 2021).

Telehealth programs overcome physical barriers to provide patients and caregivers access to convenient medical care. Healthcare systems with telehealth sustain the continuity of outpatient patient care during this pandemic—in the midst of “stay-at-home” orders and physical distancing measures, while reducing community and nosocomial spread (Wosik, 2020).

Medical professionals Annette M. Totten, Marian S. McDonagh and Jesse H. Wagner (2020) argued that “in the current pandemic, telehealth consultations have the added advantage of supporting physical distancing while enhancing the efficient use of physicians and other healthcare providers when their availability is restricted. Across clinical topics, outpatient telehealth consultations consistently improved access and reduced the number of visits and hospital admissions, and some studies reported improved clinical or psychiatric outcomes.”

Senbekov et al. (2020) stressed that telemedicine allows healthcare providers to evaluate, diagnose, and treat patients in remote locations using telecommunication technologies. Advantages of telemedicine include the ability to collect, store, and exchange medical data (Figure 3).

**Figure 3.** *The applications of telemedicine in healthcare (Senbekov et al., 2020)*

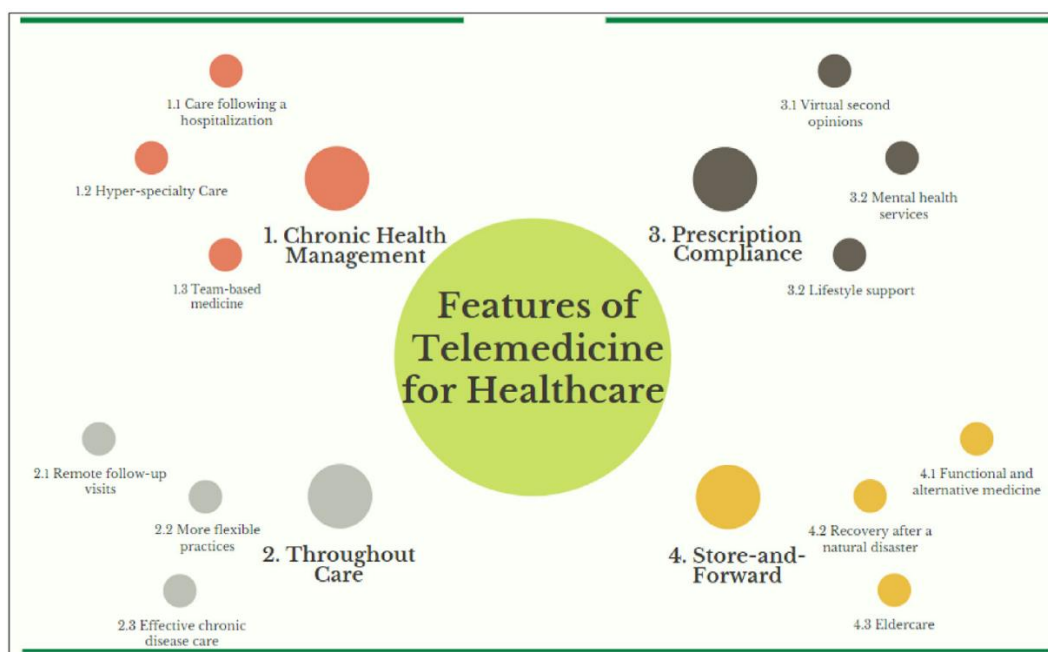


Telehealth allows continual monitoring of vitals, physical examination, ongoing clinical management, and communication with patients.

Among elderly patients with limited accessibility, telemedicine could provide an alternative, easy-to-access service. Elderly patients often suffer from social isolation, and telehealth can bring a sense of community (Bhaskar et al., 2020).

Telemedicine guarantees continuous information to healthcare providers and supports research and the evaluation of care. Using the Internet influences the quality and costs of healthcare. Telemedicine reduces both the phenomenon of “health migration” and the costs that a patient must bear. It also allows these patients simpler self-management, and gives them the opportunity to be more autonomous (Escobar et al., 2021).

**Figure 4.** *Various capabilities & features of telemedicine for healthcare domain (Haleem, Javaid, Singh, & Suman, 2021)*



Furthermore, telemedicine provides chronic health management, prescription compliance, remote services, and care-for-all under critical and severe cases. This approach supports healthcare and medical care sphere.

Telemedicine is an innovative technology and many call it a disruptive innovation. It employs a range of electronic communication media, ranging from teleconferencing to image-sharing to remote patient surveillance. This virtual consultation can eliminate the need for unnecessary in-person referrals, reduce wait times for doctor's feedback, and eliminate the need for unnecessary travel (Haleem, Javaid, Singh, & Suman, 2021).

However, Bhaskar et al. (2020) explained that telemedical consultations do not approach the same level of fidelity that an in-person physical exam yields. It misses what are in between physical exams, body language, vocal intonations, and odors. As such, the fidelity of the technology involved with telemedical consults must continually iterate to reach the same level of fidelity and information that an in-person visit might yield.

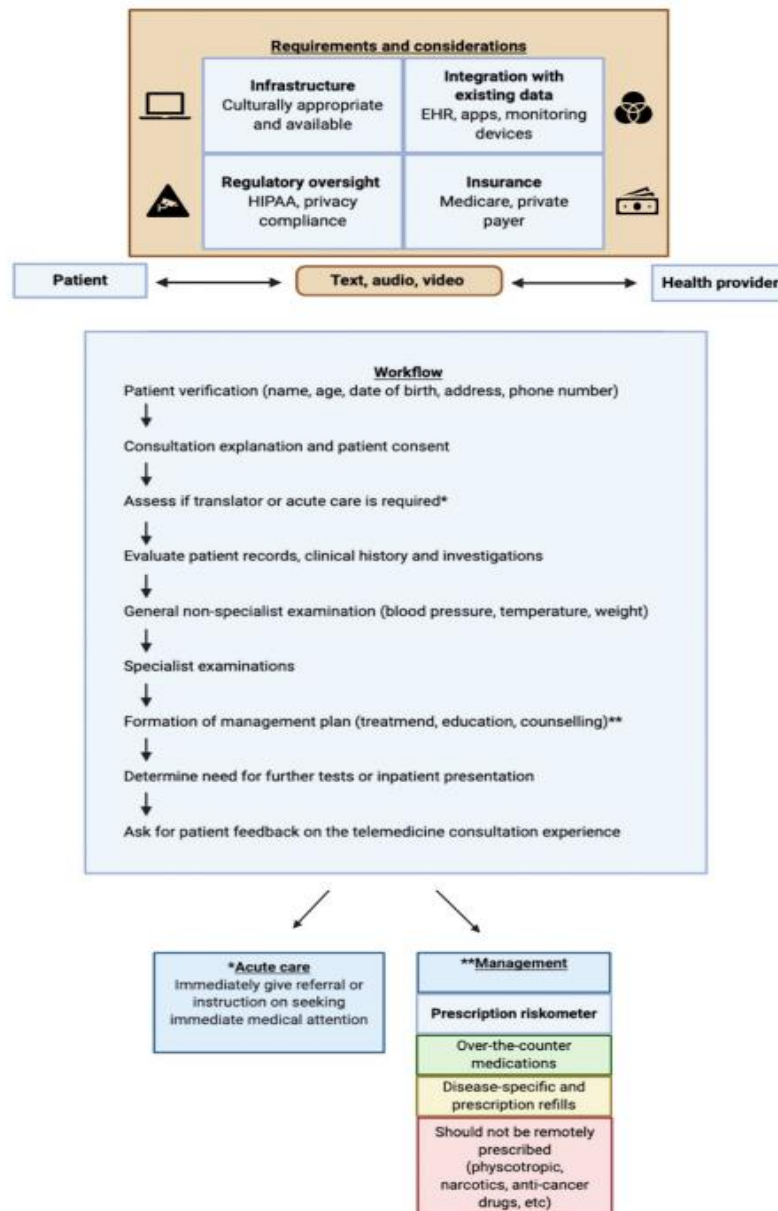
Compared to face-to-face consultations, telemedicine has increased risks related to privacy and security. Even though there are standards and regulations that protect telehealth platforms, no platform is 100% safe from breaches. The accuracy of data transmission can affect the diagnosis and treatment provided by the healthcare professionals (Hwei & Octavius, 2021).

There is a serious issue of hacking patient's medical data especially if the patient connects to telemedicine from a public network or an unencrypted channel. When a person needs emergency care, it can cause medication to be delayed mainly because a doctor could not deliver life-saving care or laboratory tests remotely. Also, state rules differ. Physicians will be unable to practice medicine across state boundaries based on the state in which they are licensed and in which the patient resides (Haleem, Javaid, Singh, & Suman, 2021).

Research findings by Ladin et al. (2021) show that there are four overarching themes that characterized telehealth's benefits and drawbacks for patient-centered care among older, chronically ill adults: inconsistent quality of care, patient experience and engagement, loss of connection and mistrust (e.g., challenges in discussing bad news), and disparities with accessing telehealth.

Although telehealth has improved convenience and care partner engagement, participants expressed concerns about clinical effectiveness and limitations of virtual physical examinations and potentially widening disparities in access. Many participants shared concerns about harms to the patient-clinician relationship, limited ability to comfort patients in virtual settings, and reduced patient trust (Ladin et al., 2021).

**Figure 5.** Various requirements and considerations for streamlined telemedicine implementation and the Pandemic Health System RESilience PROGRAM (REPROGRAM) consortium workflow for routine teleconsultation and management of patients (Bhaskar et. al, 2020)



Furthermore, Anthony Jr. (2020) argues that most developing countries may not be able to fully adopt telemedical systems specifically in remote and rural areas due to low penetration of smart devices and low expansion of 3G/4G Internet networks. Also, he states that in developing countries, the availability of adequate

health facilities is an issue. Thus, governments should support and fund the healthcare systems in establishing telemedicine, laws and regulations needed.

In addition, telemedicine's disadvantages may be experienced more by patients who have some disability such as decreased hearing and seeing abilities. It does not allow doctors to perform their physical examination, hence some may feel that doctors are not performing thorough consultations. Further, accuracy of diagnosis and then potential treatment for the patients can be affected. There would also be privacy issues regarding the accumulated data (Hwei and Octavius, 2021).

### **Perception on Telemedicine**

Bouabida et al. (2022) assert that telehealth is a very interesting approach and can be effective and affordable for health systems aiming to facilitate access to care, maintain the quality and safety of care, and engage patients, health professionals, and users of health services. It is a very promising and reliable approach to help maintain and improve the proper functioning of health services, including in times of global health crises such as the COVID-19 pandemic, according to Bouabida et al.

Based on the study of Indria, Alajlani and Fraser (2020) conducted in Indonesia, findings show that 78% of the clinician respondents expressed satisfaction with the telemedicine system and 88% expressed interest in continuing to use it (Table 3).

**Table 3.** Perception of clinician respondents on telemedicine system in Indonesia

Domain Examined	Percentages (%)		
	Yes	No	No response
1. Have you ever received any training in telemedicine?	64%	32%	4%
2. Is the system easy to use and navigate?	71%	23%	6%
3. Is the information presented clearly?	70%	22%	8%
4. Is telemedicine beneficial for your patient?	89%	8%	3%
5. Does telemedicine provide desirable results in patient diagnoses?	85%	12%	3%
6. Overall, are you satisfied with the system?	78%	15%	7%
7. Are you interested to continue to use the telemedicine system?	88%	9%	3%

In addition, the study of Indria, Alajlani and Fraser (2020) identified five factors that clinician respondents liked the most in telemedicine: 1) faster diagnosis, 2) reduced referrals, 3) increased patient's trust, 4) improved skill and coordination and 5) easier to use. Other factors include concerns on the technical quality, increase workload and time, and limited fund (Table 4).

**Table 4.** Different contributing factors identified by clinician respondents

Question	Factors Identified	Percentages (%)
<b>Like</b>	• Diagnosis and treatment faster	69%
	• Reduce referrals	3%
	• Increase patient's trust	9%
	• Improve skill and coordination	4%
	• Easy to use	13%
<b>Concern</b>	• Technical quality is poor	47%
	• Increase workload and time consuming	18%
	• Limited funding	17%
<b>Suggestion</b>	• Improve infrastructure	40%
	• Improve service quality	34%
	• Periodical training	16%
	• Increase funding	10%

Another research by Payan et al. (2022) indicates that the convenience of telemedicine was an important facilitator to promote continued use and contribute to high satisfaction of its use. Reduced wait times, reduced travel costs, and fewer transportation-related issues were mentioned as helpful, particularly for patients with chronic illness or limited mobility.

Similarly, the use of telemedicine during the recent Covid-19 pandemic starting 2020 has been rated as highly satisfactory by users. As a consequence, majority of the patients and healthcare providers reported a willingness to continue using telemedicine after the pandemic (Omboni et al., 2022).

In a global survey by Research 2 Guidance in May 2021 involving 293 professionals across the healthcare delivery spectrum, 73% of respondents stated that telemedicine was the subsegment of digital health that experienced the largest growth during the pandemic (Omboni et al., 2022).

In a previous survey conducted at the beginning of the pandemic, the percentage of positive responses was slightly lower (65%) (Omboni et al., 2022).

Meanwhile, Machrohon & Cristobal (2013) determined the satisfaction of patients and health providers on healthcare delivery using the teleconsultation program of the Ateneo de Zamboanga University – School of Medicine. Results showed high satisfaction among both health providers and patients but concerns were raised regarding the costs of the system. The respondents felt that privacy issues were kept confidential with the system.

In addition, Snoswell et al., (2023) conducted a survey among 1069 Australian consumers to describe their most recent telehealth appointment. Most of these were for follow-up appointments (67%) and completed by telephone (77%) rather than by

videoconference, and with a general practitioner (75%). Consumers preferred to have short consultations of around five minutes done by telehealth (telephone or videoconference), while they preferred in-person for longer consultations (up to 60 minutes).

Results of another survey conducted by the National Comprehensive Cancer Network among almost 800 healthcare providers on their perspectives of telemedicine for patients with cancer showed that many of the respondents said that there was no difference between video and in-person visits to explain malignancy-related clinical data. They said that video visits were better for follow-up surveillance or for explaining reassuring data, whereas in-person visits were better to assess complications of therapy and to establish a personal connection with their physicians (Chiang & Herbst, 2022).

The survey respondents noted that barriers to telehealth uptake included patients' access to technology, inefficient workflows, the need for a physical exam or laboratory tests, and reimbursement. A total of 93% of respondents reported that an adverse outcome never or rarely arose due to a telemedicine visit compared with an in-person visit. Thirty-three percent (33%) of patients could be seen via video visits after resolution of the pandemic (Chiang & Herbst, 2022).

Moreover, results of a local study by Noceda et al. (2022) suggest that participants were generally satisfied with telemedicine services, with most reporting that this was an efficient and convenient alternative to face-to-face consultations. However, only 2 in 5 perceived telemedicine as affordable. Also, the quantitative results suggest that participants preferred telemedicine services rather than in-

person consultations, especially in cases where they felt that their condition was not urgent and did not need extensive physical examination.

Safety against COVID-19, and the availability of multiple communication platforms contributed to patient satisfaction with telemedicine. Meanwhile, negative perceptions of patients on their telemedicine provider include higher costs, poor connectivity and other technological issues (Noceda et al., 2022).

A local study was done by Dr. Ella Mae C. Lim et al. (2021) on the perception of physicians on the role of telemedicine in cancer care during and post Covid-19 pandemic. Of the 84 physician responses, 84% of them perceived its main benefit as an infection control measure. The other perceived benefits included convenience (78%), accessibility to cancer care (72%), cost-effectiveness (68%), and time efficiency (44%) (Lim et al., 2021).

However, another local study about patient satisfaction with telemedicine during the Covid-19 pandemic pointed to perceived high costs, poor connectivity, and other technological issues as barriers to its use and satisfaction on its use (Noceda et al., 2022).

### **Theoretical Underpinning of the Study**

The study focuses on the narratives of health patients using telemedicine. This is inspired by the theory of social determinism and the social construction theory (Bijner, 1995; Pinch and Bijner, 1987; Bijner and Winner). Although technological determinism has become the most influential social theory of technology, there is a rival social theory of technology, which is social determinism. This theory assumes

that technology and technological change are socially constituted or constructed products rather than determined by some self-developing path (Feng, 2022).

Bijker (1995) states that “One should never take the meaning of a technological artifact or technological system as residing in technology itself”, which reinforces that the power of technology is in the meaning and the meaning is given by different people.

As Langdon Winner states (1986), “What matters is not the technology itself, but the social or economic system in which it is embedded”. Basically that society is not controlled by technology but innovation and the consequences of technology are shaped through the influences of things like culture, politics, economic arrangements and regulation.

Social determinism contains three assumptions: (1) technology and society are discrete; (2) technology constitutes society, i.e., technology has an impact on society; and (3) society constitutes technology, i.e., society can play some constructive role in technology (Feng, 2022).

Social determinism, according to Qianyu Feng (2022) holds that technology is never something with an inherent rational logic, but rather a craft demonstration of social, political, and cultural values. It emphasizes that social factors or value (interest) orientations construct technology, and that technological innovation is rooted in the social context and determined by cultural, economic, and political choices rather than by a specific technological logic.

The idea of social determinism was born later than technological determinism, under the influence of the sociology of science and gradually emerged from the growing sociology of technology research after the 1960s. Social determinism is

primarily concerned with the social production (construction) of technology. If one believes that society is absolutely autonomous from technology and claims that society is the most important cause of technological change, this is called strong social determinism (Bijker, 2015).

The Social Construction of Technology (SCOT) is an example of social determinism. Historically the development of SCOT is closely linked to the sociology of scientific knowledge and to the science, technology, and society movement in the 1970s. The advent of the approach (SCOT) in the mid-1980s (Pinch and Bijker 1987), along with a contextualist history of technology (Staudenmaier 1985), has challenged the technical aspect of technological determinism. SCOT argues that society creates technological outcomes, in which different societies might result in different outcomes.

The study believes that while telemedicine is a technology for health communication, this innovation is “rooted in the social context and determined by cultural, economic, and political choices rather than by a specific technological logic.” This means that the use of telemedicine was shaped by these factors especially because of a major historical upheaval, which is the Covid 19 pandemic starting 2020. This stand recognizes the interaction and exchange between technology and society and how each can shape the other.

## **Chapter III**

### **METHODOLOGY**

#### **Research Design**

This is a qualitative research using a case study design. In case studies, the researcher explores in depth a program, event, activity, process, or one or more individuals. The researcher collects detailed information using a variety of data collection procedures over a sustained period of time (Creswell, 2014 as cited in Priya, 2020). This is a case study of users or patients who have used telemedicine during the pandemic.

#### **Participants of the Study**

In this research, five (5) health patients who are 18 to 45 years old from different barangays in Lucena City were selected as participants of the study.

I used Purposeful Sampling in choosing the respondents. Purposeful sampling can provide in-depth and detailed information about the phenomenon under investigation. It is highly subjective and determined by the qualitative researcher generating the qualifying criteria each participant must meet to be considered for the research study (Statistics Solutions, n.d.)

I used the following criteria in selecting the participants: (1) He/she must be a resident of Lucena City, (2) has experienced consulting online via telemedicine numerous times, (3) has experienced consulting face-to-face with a physician; and (4) is 18 to 45 years old and a senior high school or college graduate who can understand and respond to each question.

I sought assistance from a Medical Doctor who is a friend to suggest some potential patients. I then contacted the suggested interviewees and explained to

them about the research and asked for their consent to be part of the study as part of the ethical considerations.

### **Research Locale**

I chose Lucena City as the locale because it's an urban place where there is easy access to online health services including telemedicine. I also reside in the place and is familiar with the people and the place. I gathered the data from May 9, 2023 to June 18, 2023.

### **Research Instrument**

I conducted an in-depth interview via Zoom or Messenger call among the selected participants to elicit their narratives about their experiences in using telemedicine. I made follow-up questions when I needed more relevant data or to clarify some answers.

### **Data Gathering Procedure**

After contacting the participants, we discussed some ethical considerations for the research. Only when the participants agreed to the term did I begin the interviews.

The interview lasted for an average of 30 minutes to an hour or more per participant although some were longer because of follow-up questions or clarifications.

I also asked permission to record and document the interview for reference. As agreed, all personal information were kept confidential and all data gathered were strictly used for the study only.

## **Ethical Considerations**

Bryman and Bell (2007) identified the ten most important principles related to ethical considerations in research. Two of these principles are (1) full consent should be obtained from the participants prior to the study and (2) the protection of the privacy of research participants has to be ensured (Business Research Methodology, n.d.). Hence, I provided and secured a signed written agreement with the participants, which assured them that any private or personal information would be kept confidential, that they would remain anonymous, and that their answers would only be used for the purpose of the study.

## **Data Analysis**

To analyze and interpret the information obtained from the interviews, I used three levels of coding namely: open coding, axial coding, and thematic coding, to interpret the findings from the participants' viewpoints.

1. *Open Coding*: data are initially broken down and analyzed to identify concepts, categories, or themes. It involves generating initial codes that capture the main ideas or concepts found in the data (Siegle, 2023).
2. *Axial Coding*: involves a more focused and systematic examination of the data to identify relationships between categories and subcategories identified during the open coding phase. It aims to establish connections and linkages between concepts, exploring how they relate to each other and contribute to the overall phenomenon under study (Siegle, 2023).
3. *Thematic Coding*: involves recording or identifying passages of text or images that are linked by a common theme or idea allowing you to index

the text into categories and therefore establish a “framework of thematic ideas about it” (Gibbs, 2007, as cited in Better Evaluation, n.d.)

## CHAPTER IV

### RESULTS AND DISCUSSION

The discussion in this chapter is guided by the four research questions of the study. Hence, the first part answers how patients communicate using telemedicine. The second part discusses how they view communication via telemedicine vis-à-vis consulting face-to-face. The third part tackles how they view telemedicine as an alternative for healthcare. And the last part asks them how they could improve the use of telemedicine.

#### **Venturing into Telemedicine During the Pandemic**

The study first established how and why the participants ventured into using telemedicine. The primary reason is actually the onset of the Covid-19 pandemic in 2020.

#### **Societal Health Challenge**

Participant A shared that s/he had to install Viber to continuously connect to his/her doctor amid the pandemic since s/he needs regular health monitoring.

S/he contacted the doctor's secretary in March 2020, and the latter advised him/her to consult via telemedicine so s/he can continue the check-up s/he started in September 2019.

*“Oo kasi before mag-pandemic, parang weeks before mag-lockdown tayo. March tayo ‘di ba nag-lockdown, 2020, parang weeks before nun, nakapagpa-check-up pa ako sa ano... Naka-travel pa ako, tapos check-up. Tapos meron nga kaming sched ng September. Kaya kinontact ko na rin nung naka-lockdown na tayong lahat, pati sila,*

*kinontact ko ‘yung secretary, eh ‘yun nga telemedicine na lang, teleconsult, ‘yun’.*

[Weeks before the [lockdown; March 2020], I was able to travel and had my check-up. Then we had a schedule in September and there was already a lockdown, so I contacted the secretary. We had it [the check-up] through telemedicine or teleconsult [Part A, p. 1, lines 27-30]

Participant E likewise shared that since s/he could no longer go out to the hospital, s/he started going online for his/her consultation.

*“Nag-start po kasi nung pandemic, ay di na po tayo makalabas, ‘di ba. Mahirap pumunta ng hospital. Tapos ‘yun, nag-start na po na laging online ang check-up... ‘Di na kami nalabas ng bahay”.*

[It started during pandemic, since we could no longer get out of the house. It was difficult to go to the hospital. Check-ups started via online. But now I like it more. We don’t need to go out of the house [Part E, p. 45, lines 4-6]

Lastly, Participant E also used telemedicine when consultations shifted to online due to the pandemic and s/he, especially his/her father, needed to communicate with their personal doctors.

*“Ang madalas eh si father gawa siya ay may COPD [Chronic Obstructive Pulmonary Disease]. Madalas po siyang magpa-check up. Halos twice a month po siyang nagpapa-check up”.*

[It was my father who often consults because he has COPD [Chronic Obstructive Pulmonary Disease]. He often has his check-up. It's almost twice a month]. [Part E, p. 45, lines 15-16]

Participant B became aware of telemedicine through Facebook and primarily used it for her children especially when she was pregnant with her second child during the pandemic.

*“Oo, aware na ako kasi nga nakikita ko sa Facebook”.*

[Yes, I'm already aware [of telemedicine] because I see it in Facebook].  
[Part B, p. 13, line 106]

*“my children ay merong high fever, may cold and cough so I was very scared baka sila ma-dehydrate o kaya positive sila sa Covid. Nahirapan talaga akong maghanap ng good pedia for them especially in the province. Ang pedia natin limited lang. So, pipila pa tapos ang sasabihin after two days ka pa magkameron ng slot. So, I tried the telemedicine and instantly, nabigyan ako ng prescribed drug that is suitable for my children”.*

[my children had high fever, colds, and cough. I was scared that they might get dehydrated or be positive in Covid. I had a hard time finding a good pediatrician for them especially in the province where the number of pediatricians is limited. So, we would fall in line then they would tell us that we'll have a slot after two days. So, I tried telemedicine and instantly. I was given the prescribed drug suitable for my children]. [Part B, 13, lines 88-93]

Participant C started using telemedicine when s/he needed consultation about his/her medical results back in 2021. S/he explained that s/he needed a medical

check-up when s/he was hired for a job at DepEd in 2021, so s/he had to use an alternative way to get results.

*“Noong 2021, na-hire ako sa DepEd. So lumabas ‘yung result ko. So kailangan ‘di ba, kapag papasok ka, kailangan ng medical. So ‘yun, nakita na mataas ang SGPT, SGOT at tsaka sugar”.*

[in 2021, I was hired by DepEd. When you’re hired, medical is needed. So, I saw that my SGPT, SGOT and sugar level were high].

[Part C, p. 28, lines 11-13]

### **Expanding Limited Practice to Societal Need**

Some of the participants knew about telemedicine even before the pandemic. Participant C explained that in their church, they were already operating telemedicine, which made it easier for his/her to transform to online consultation.

*“Sa Church kasi namin, merong telemedicine. ‘Yung tatawag ka online, magpapa-schedule then may makakausap kang mga doctors kung may problema ka... ni-refer ako ni Con”.*

[In our Church, there is telemedicine. You would call online, ask for a schedule, and there are doctors whom you would talk to about your [health] problem. [Dr.] Con referred me to the doctor]. [Part C, p. 28, lines 13-14]

Participant D, on the other hand, learned about telemedicine even before the pandemic since their company has already initiated online consultation among its staff. S/he shared that as s/he was working in a small company, they had doctors and nurses. As the doctors were not available all the time, they used to send

messages to the doctors through the nurses in the clinic. S/he felt this may have been their introduction to telemedicine, but she was not really sure if this experience could really be considered as such.

*“Oo. Talagang ‘di ka pwedeng mag-turn off ng [phone]. ‘Di ka basta-basta makakapag-leave lalo na dun sa company namin kasi maliit lang ‘yung company. Konti lang ‘yung tao so talagang we make do na kung sino ‘yung available. Dahil dun, pina-provide kami ng company ng nurse at doctors. Pero ‘yung doctors, syempre meron rin silang ibang obligations, so hindi 24 hours nandun sila sa office o sa clinic sa building. So meron kaming nurse, siya ‘yung in-charge sa mga concerns namin sa health. Tapos magcha-chat lang kami sa kanya”.*

[Yes. You really can't turn off [your phone]. We could not just go on a leave since our company is quite small. It only has few staff, so we really make do with whoever was available. Because of that, our company provided us a nurse and doctors. But the doctors, of course have other obligations. They are not there in the office or clinic 24 hours, we have a nurse who is in charge with our health concerns. We'll just chat her]. [Part D, p. 36, lines 37-41]

*“So parang ‘yun na rin ‘yun [telemedicine] since hindi kami face-to-face ng nurse kasi hindi talaga kami lumalabas ng opisina namin. So, chat chat lang. Parang ‘yun ‘yung introduction namin sa telemedicine. Ewan ko kung considered as telemedicine na siya pero, through Viber, chat, Messenger or minsan phone calls kapag may gustong malaman si doc tungkol sa nararamdaman namin. Magcha-chat siya kay nurse”.*

[It was like [telemedicine] already since we didn't talk with the nurse face-to-face as we couldn't really leave the office. It was only through chat. It seemed like that was our introduction to telemedicine. I am not really sure if that could already be considered to be but we used Viber, chat, Messenger or even phone calls if the doctor wanted to know something about our condition. S/he would just chat with the nurse] [Part D, p. 37, lines 109-113]

The next step is when patients register and encode their basic profile, download preferred online platform, log-in using a generated account, wait for the confirmed schedule of appointment, and finally, talk to the attending physician for consultation and treatment.

### **Development of Processes**

The participants said they would wait for the confirmation of their schedule from the doctor's secretary before they would get connected to the physician. Since they use apps like Viber or Messenger, these no longer required them to generate a meeting ID and passcode.

Meanwhile, among the applications of telemedicine, the participants experienced using telemedicine for the 1) collection, storage, and exchange of medical data; 2) remote diagnostics and patient monitoring; and 3) interactive telemedicine services (real-time).

Participants forwarded their laboratory results in scanned, PDF, or picture format to the attending physician for consultation. The doctor then reviewed the results and interacted with the patient (through chat, audio or video call) to discuss his/her diagnosis real-time.

The doctor also provided prescriptions that the patients presented to the pharmacy. Moreover, telemedicine was also used when participants needed to make follow-up consultations or when doctors had to do regular monitoring of the patient such in the case of Participant A.

In addition, their experiences included other applications such as disaster and quarantine assistance and for industrial health. During the pandemic, the participants were still able to consult their doctors through telemedicine by just being at home. In the case of Participant B, telemedicine was used by their company because of the nature of their work in which they were required to be on call.

### **Initial Telemedicine Experiences**

The participants used telemedicine for three purposes: 1) for consultation/check-up; 2) for sending/receiving laboratory and diagnosis results; and 3) for getting prescriptions (Figure 5 and Table 5). In all these uses, they made adjustments to avail of the technology by learning new applications that they could use for different phases in the consultation.

### **For Consultation/Check-up**

The participants said they used telemedicine for consultation, especially during the pandemic when it was quite difficult to see the doctor face-to-face.

### **Created Viber Account**

Participant A created a Viber account to send his/her laboratory results and consult his/her doctor. Before, s/he did not even have a Viber account. Hence, this was a technological skill that s/he had to learn.

*“Hindi nga ako gumagamit ng Viber, nagkaroon ako ng account sa Viber. Nitong pahuli na, doon na din ako nagse-send ng mga [laboratory results]. ‘Yung usapan namin ng secretary ni doktora, doon din sa account niya”.*

[I actually did not use Viber then, but I created an account in Viber. Lately, I have also been sending my laboratory results through Viber. My conversations with my doctor’s secretary also take place through my doctor’s [Viber] account.] [Part A, p. 2, lines 54-56]

Participant A eventually also did his/her regular check-up using Viber.

*“‘Yung mga regular check-up namin, ganun palage, through Viber”.*

[I always do my regular check-ups through Viber] [Part A, p. 3, line 85]

### **Used Messenger or Viber**

Participant D said that s/he usually used Messenger or Viber where s/he frequently chatted questions about health.

*“Ang usually na ginagamit ko is Messenger o kaya Viber. Palage akong nagcha-chat kay Doc Con ng mga questions ko regarding health”.*

[I usually use Messenger or Viber. I always chat Doc Con about my questions regarding health.] [Part D, p. 35, lines 18-19]

### **Used Audio/ Video Call**

Participant A said that s/he and the doctor often used video call during consultation.

*“Parang may experience naman ako na audio call pero madalas, naka-video call kami ni doktora”.*

[I think I had experienced doing audio calls, but oftentimes, my doctor and I did video calls]. [Part A, p. 2, lines 62-63]

Participant B narrated how the doctor examined the patient through video call.

*“Oo, video call. Tinitignan niya kasi baka may rashes from head to toe. Pinao-open niya ‘yung genitals baka kasi may sugat o rashes o kaya may bacteria na nagco-cause ng sakit. Tapos titingnan din niya ‘yung lips, pinazu-zoom in baka kasi dehydrated tsaka ‘yung eyes. At least dun, ‘yung usual na tinatawag nilang sa children na physical examination, using lang the application na video call, nakikita naman nila.”*

[Yes, through video call. The doctor would check if there were rashes from head to toe. S/he also examined the genitals because there might be wounds, rashes or bacteria that was causing the illness. S/he would also zoom in and check the lips and eyes because they might be dehydrated. At least with children’s physical examination the [doctor] could check them through video call]. [Part B, p. 15, lines 178-181]

### **Used Chat Questions**

Participant D shared that even before the pandemic, they connected with their company doctors through the clinic nurses using chat.

*“Nurse, may nararamdaman akong ganito”. [Nagcha-chat ako] kahit before pandemic pa ‘yun”.*

[“Nurse, I’m feeling something like this”. I chatted my questions even before pandemic]. [Part D, p. 36, lines 41-42]

### **To Get or Give Results**

The participants also used new media applications or technology to get or give results to their doctors, such as laboratory results.

## Use of Viber

Participant D used Viber to send laboratory results for consultation.

*“Hindi na muna ako nagpa-check agad kasi gusto ko munang kumuha ng second opinion dun sa mga doctor namin sa kumpanya. Kasi if ever, ‘yung kumpanya ang mag-aasikaso ng [para] sa medical ko. Ang nangyari, nagkokonsulta ako through Viber sa doctor namin sa kumpanya. So, pinadala ko sa kanya ‘yung lahat ng result ng test na ginawa namin sa hospital kung saan ako na-confine.”*

[I didn't have a check-up yet because I wanted to get a second opinion from our doctors in the company. The company would settle everything for my medical. What happened was, I was consulting our company doctor through Viber. I would send to him all the results of the test I had from the hospital where I was confined]. [Part D, p. 38, lines 141-145]

## Use of PDF

Participant B shared that his/her classmates also used telemedicine to send a PDF format of their laboratory results to a doctor.

*“Ang ginagawa nila, pupunta lang sila. Sila na mismo magpapa-laboratory kapag may nararamdaman sila. Nagpakuha na agad sila ng blood chem. Tapos, through telemedicine, ina-attach nila ‘yung PDF”.*

[They already had their laboratory tests when they were not feeling well. They would request for blood, and through telemedicine, they would attach the PDF file [of the results]. [Part B, p. 25, lines 498-500]

## **Use of scanned messages**

Participant C used telemedicine to send a photo of laboratory results to the doctor for the next consultation or check-up:

*“Maganda ang telemedicine talaga kasi halimbawa, may follow-up, pipictur-an ko lang ‘yung [laboratory] result after kong mainom ‘yung mga nireseta sa akin after a month. So, ire-resend ko ‘yun tapos makakausap ko ulit ‘yung doctor”.*

[Telemedicine is really good because, for example, if I wanted to follow up, I would just take a picture of my [laboratory] result after I have taken the prescribed medicine for a month. I would just send [the picture] and eventually get to talk to the doctor.] [Part C, p. 29, lines 36-39]

Participant E also said that his/her father used telemedicine to send scanned results to his personal doctor:

*“Ganun din itong father ko. May doctor rin naman siya. Dun naman sine-send, pinipicturan ko lang o kaya ini-scan ‘yung result ng uric niya”.*

[It's the same thing for my father. We send through his doctor. I just take a photo or scan the result of his uric [results].] [Part E, p. 47, lines 91-93]

## **Receive Prescriptions**

Participant B and E shared that they started using telemedicine since the pandemic for check-up and getting prescription. And these online prescriptions have become acceptable to the local drugstores. This, in itself, shows the adjustments that pharmacies also did to meet the needs of these increasing number of patients availing of telemedicine.

## Use of Messenger

Participant B used Messenger to get immediate prescription from the doctor.

*“Bukod sa convenience, ‘yung prescription nila easy, on-the-go, kasi they would just send it to you via Messenger o kaya nandun na sa mismong app. You would just download it and show it to the pharmacy”.*

[Apart from convenience, the prescription is easy, on-the-go, because they would just send it to you via Messenger or in the [consultation] app. You would just download it and show it to the pharmacy.] [Part B, p. 12, lines 41-43]

Participant E said that s/he used Messenger when s/he needed to treat his/her UTI.

*“Netong minsan lang, nagka-UTI ako. Pinakuwento po sa akin kung anong nararamdaman ko. Tapos po ay may reseta, magpa-test daw po ako ng urine. May reseta naman pong gamot”.*

[Just recently, I had UTI. I was asked to describe what I was feeling. Then, there was a prescription. The doctor asked me to have my urine tested. There was a prescribed medicine.] [Part E, p. 45, lines 22-24]

## Use of Viber

Participant C used Viber to talk to a doctor, send laboratory results, and get prescription:

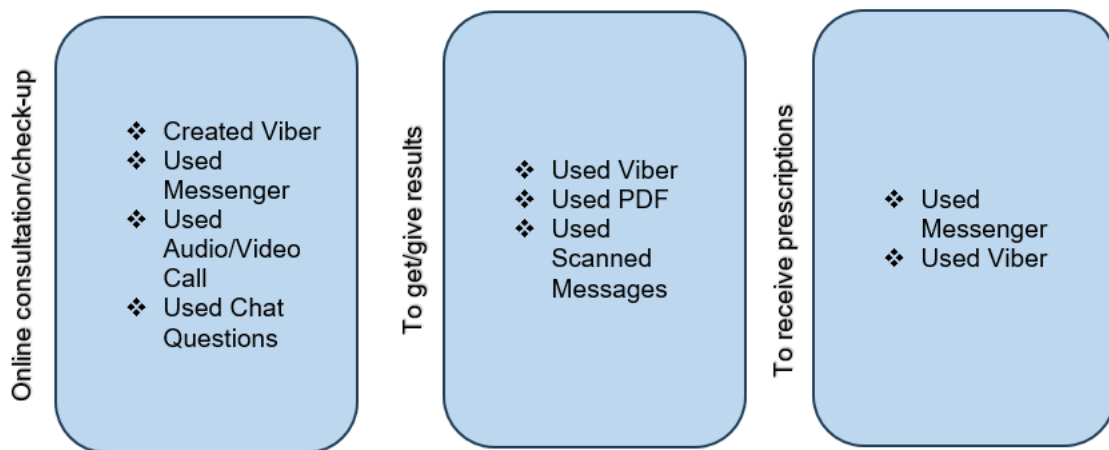
*“Nakausap ko ‘yung doctor after ko makausap ‘yung secretary. Sasabihin ko kung ano nararamdaman ko plus ‘yung result. Tapos, pag nakausap ko na ‘yung doctor, ise-send lang niya sa Viber ‘yung reseta”.*

[After I talk to the secretary, I would be able to talk to the doctor. I told him/her what I felt as well as the result. Afterwards, s/he would just send the prescription through Viber.] [Part C, p. 28, lines 11-17]

**Table 5. Use of Telemedicine by the Participants**

<b>Open Code</b>	<b>Axial Code</b>	<b>Thematic Code</b>
I actually do not use Viber but then I created an account in Viber (Part A, page 2, line 54)	Created Viber	For online consultation/check-up
So, I always do my regular check-ups through Viber (Part A, page 3, line 85)		
I usually use Messenger or Viber (Part D, page 35, line 18)	Messenger	
Yes, via Messenger (Part E, page 45, line 28)		
I think I had experienced doing an audio call but oftentimes, I and <i>doktora</i> do video call (Part A, page 2, lines 62-63)	Audio/video call	
It's when you call online (Part C, page 28, line 13)		
They can check them through video call (Part B, page 15, line 181)	Video call	
I always chat her about my questions (Part D, page 35, line 19)	Chat questions	To get/give results
Recently, I sent there [Viber] the results of my lab tests (Part A, page 2, lines 54-55)	Viber	
they attach the PDF file [of the results] (Part B, page 25, line 500)	PDF	
So, I'll just send it [results] (Part C, page 29, line 38)	Scanned	
I sent to him all the results of the test (Part D, page 38, line 144)		
So, I just take a photo or scan [the result] and send it (Part E, page 47, lines 92-93)		To receive prescriptions
they'll just send it [prescription] to you via Messenger (Part B, page 12, line 42)	Messenger	
he/she will just send the prescription through Viber (Part C, page 28, line 17)	Viber	

**Figure 6. Use of Telemedicine by the Participants**



In summary, the pandemic compelled the participants to use telemedicine to continue consultation with their doctors, send laboratory results, and to receive prescriptions. They had to create applications such as Viber or shift their use of messenger and video chats that would help them connect with their doctors or the nurses. They had to learn the use of these applications as well as new ones (e.g., scanning of results, transforming images into pdf files) so they could maximize the potentials of these technologies.

### **Views on Telemedicine vis-a-vis Face-to-face Consultation**

When the participants have been using telemedicine for sometime, they began appreciating its advantages. Overall, they said that its use was affordable, comfortable, convenient, safe, and immediate (Table 6 and Figure 6). These are explained in detail in the next section.

## **Affordable**

Participants B, C, and D said that telemedicine is less expensive and helps them save money. Doctors offer free consultation online or charge a lower cost than when it's face-to-face as testified by Participants B and C. Another factor is that they don't have to spend for travel to go to the hospital/clinic to talk to their doctors. Escobar et al. (2021) noted that telehealth influences the cost of healthcare. They said that it's an important aspect that telemedicine reduces the cost which patients must bear.

## **Save Money**

Participant B shared that she could save money because her doctor offered free online consultation.

*“Oo, ayos kasi sa telemedicine ko rin na-meet ‘yung naging OB na nagpaanak sa akin sa 2<sup>nd</sup> born ko, sa aking bunso. Very active siya kasi nung pandemic. Two months pa ‘yung no physical contact, nagkaroon siya ng free consultation. Sa akin, laking tipid rin ‘yun kasi usually, weekly ako nagpapa-check up”.*

[Yes, telemedicine is okay because I met my OB for my youngest child via this method. She [doctor] was very active during the pandemic. Two months into the ‘no physical contact policy’, she already offered free consultation. I saved a lot of money because, I usually had my check-up weekly.] [Part B, p. 18, lines 270-272]

Participant D said that s/he could save money because s/he no longer needs to spend for travel.

*“Kahit, ‘yung doctor ko kasi nasa Manila at nandito ako sa Pampanga, naging madali siya, nakapag-communicate kami. Hindi ko kinailangang pumunta dun, hindi na luwas ng luwas kung kailangang magpa-check up. So, unang una, nakakatipid ka”.*

[Even though my doctor is in Manila and I am in Pampanga, it is easy to communicate with each other. I don’t have to go there, to travel to have my check-up. So, first, it saves me money.] [Part D, p. 38, lines 148-150]

### **Inexpensive**

In addition, Participants B and C attest that telemedicine is cheaper than consulting face-to-face.

They stated that:

*“Budget-friendly talaga siya. Mas lalo na’t dalawa ‘yung anak ko. ‘Pag sa physical doctor ‘yun, tig-isa ang bayad. Ang consultation ngayon 500, e di 1,000 agad. Kapag light symptoms lang, cha-chat lang ako, 200 lang. Tapos halimbawa kapag nakikita ko parang nagcha-chap ang lips, may eyebag, masama talaga pakiramdam, video call. Ano lang ‘yun, 600”.*

[It’s really budget-friendly especially that I have two children. If it’s with a physical doctor, I would pay for each of my children. Nowadays, the consultation fee is 500 pesos so it would cost me 1,000 pesos already. If they show light symptoms, I just chat a doctor and it costs me only 200 pesos. If I notice that they [children] have chapped lips, eyebags, and they don’t feel well, I use video call. It’s only 600 pesos.] [Part B, p. 22, lines 415-419]

*“Actually, mura ng 200 pesos. Kung ako ay magte-telemed kay Dra., ang bayad lang is 500, pero kung face-to-face ko siyang makakausap, 700 ‘yun”.*

[It’s actually cheaper by 200 pesos. If I would use telemedicine with Dra., the fee is only 500. But if I would talk to her face-to-face, it’s 700 pesos.] [Part C, p. 33, lines 171-172]

### **Comfortable**

Ladin et al. (2020) noted that many participants shared concerns about harms to the patient-clinician relationship, limited ability to comfort patients in a virtual setting, and reduced patient trust. However, participants of the study stated otherwise.

Participant A said that she does not feel nervous and does not have a hard time when using telemedicine.

For Participant A, using telemedicine is more comfortable because:

it lessens his/her nervousness when they’re just talking online:

*“Sa feeling ko mas okay siya. Minsan kasi nakakakaba din. ‘Yun bang sa tagal ko nang pumupunta ng hospital, ultimo ‘yung tunog, ultimo ‘yung amoy ng hospital, parang kinakabahan ako. Wala ‘yun ‘pag ganung nag-uusap lang kami”.*

[I feel that it’s [telemedicine] much better because sometimes. I also feel nervous [face to face consultation]. Although I have been to the hospital many times, the sound and even the smell of the hospital, it makes me nervous. I don’t feel that way when we’re just talking online.] [Part A, p. 4, lines 130-132]

His/her discomfort is less as s/he is not asked to lay down:

*“Natuwa nga ako sa first time kasi hindi ako nahirapan, hindi ako humiga, walang pinagawa sa’yo.”*

[I actually felt glad about my first time [in telemedicine] because I did not have a hard time. I was not asked to lay down, nothing was asked for [me] to do.] [Part A, p. 2, lines 69-70]

and it is less tiresome because it doesn't require him/her to travel:

*“Sa pagod din kasi nagtra-travel pa ako eh”.*

[Tiredness because I travel.] [Part A, p. 3, line 96]

*“Ako ay may regular check-up. Hindi naman kailangan na parating pupunta talaga dun. Pero hindi rin ako pwede na palageng telemedicine. Hindi siya pwede dun sa kalagayan ko na kailangan actual na makita. May times talaga na pwede na ‘yun lalo na pagod nga ng byahe, ng travel...”*

[I have regular check-ups. But I don't always need to go there. Yet, I can not use telemedicine all the time. It is not possible for my case when the doctor needs to physically examine me. But there are times when telemedicine is good, especially as travelling can be tiresome.] [Part A, p. 7, lines 222-225]

Likewise, Participant C thinks that telemedicine is more comfortable because:

it also lessens his/her discomfort by just being at home rather than being in the hospital:

*“Oo, nandun ‘yung kaba. Syempre kapag nag-send ako, ‘ano kaya ‘yung meron sa akin?’. Pero okay naman siya. Parang same pero iba ‘yung pakiramdam kapag face-to-face. ‘Yung ambiance na parang hospital o clinic kumpara sa bahay na parang chill lang. Ichi-chika mo lang kung ano nangyare sa doctor”.*

[Yes, there is uneasiness. When I send [my concern/results], I would wonder, “what was [wrong] with me?”. But it’s okay. They [telemedicine and normal consultation] are the same, but the feeling is different when it’s face-to-face. It is more comforting when you are at home than when you are in the clinic or hospital. [At home] you will just share to the doctor what is happening to you.] [Part C, p. 31, lines 116-119]

*“Ang kagandahan naman ng nakapag-telemed, hindi dyahe...”*

[What’s good about telemedicine is it’s less embarrassing.] [Part C, p. 31, line 102]

### **Convenient**

Wosik (2020) argued that telehealth programs overcome physical barriers to provide patients and caregivers access to convenient medical care. This idea is supported by the participants’ narratives, specifically of Participants A, C, and D. They said that telemedicine is convenient for it does not require them to be physically present in the hospital or clinic. It also saves time, which favors working people like Participants B and D.

## **No more travel**

Both Participants A and D said that telemedicine is convenient since they no longer need to travel.

*“Kahit hanggang ngayon na wala na tayong mga lockdown, ‘pag tingin niya, ang kailangan lang naman niya eh kukumustahin ako, sasabihin niya sa akin, ‘yung next [consultation] Viber na lang ulit. Pinakamaganda dun, ‘di na ako nagtra-travel”.*

[Even until now that there’s no more lockdown, my doctor still checks on me, asks how I am and says, “let’s just have your next [consultation] through Viber”. I don’t need to travel, and that’s the best thing about it.] [Part A, p. 3, lines 90-92]

*“So kahit, ‘yung doctor ko nasa Manila at nandito ako sa Pampanga, naging madali siya, nakapag-communicate kami. Hindi ko kinailangang pumunta dun, luwas ng luwas kung kailangang magpa-check up”.*

[So even though my doctor is in Manila and I am in Pampanga, it is easy to communicate with each other. I don’t have to go there, to travel when I need a check-up.] [Part D, p. 38, lines 148-150]

## **Defies distance**

Participant C said that telemedicine is convenient since distance doesn’t matter when using telemedicine.

*“Oo maganda [ang telemedicine]. Halimbawa ang espesyalista mo ay nasa abroad, kagaya neto, hindi ko na kailangang pumunta diyan sa inyo”.*

[Yes, [telemedicine] is good. For example, if my specialist is abroad, I don't have to go where he is.] [Part C, p. 31, line 127]

### **Time efficient**

Participants B and D think that telemedicine is convenient because it saves time. It doesn't interfere much with their work schedule.

Participant B shared that for a working mom like her, telemedicine is just appropriate because it's easier to make appointments with the doctor and get laboratory tests.

*"In my case dahil working [ako], time efficient 'yung telemedicine for making appointments not only in the doctors but also in laboratory."*

[In my case since I am working, telemedicine is time efficient for making appointments not only with the doctors but also in the laboratory.]  
[Part B, p. 15, lines 150-152]

Participant D said it gives him/her more time for work since telemedicine doesn't require him/her to travel.

*"Since kailangan mong magtrabaho... 'yung oras mo nama-maximize mo. Alam naman natin ang byahe sa Metro Manila, sobrang grabe talaga. Nakaka-frustrate pero wala naman tayong magagawa kasi 'yun 'yung system. So 'yun, tipid sa oras".*

[Since I need to work... I could maximize my time. We all know how travelling to Metro Manila is, really bad. It's really frustrating, but we could not do anything because it is the system. So, it saves time] [Part D, p. 39, lines 173-176]

## **Safe**

Wosik (2020) added that telehealth sustains the continuity of outpatient patient care during the pandemic—in the midst of “stay-at-home” orders and physical distancing measures, while reducing community and nosocomial spread.

As Participants B, C, D, and E mentioned, telemedicine reduces the risk of catching diseases by limiting physical contact since they no longer have to go to hospital for consultation or check-up. This prevents them from being exposed to other people outside their homes who might be carriers of virus.

## **Avoids exposure to diseases**

For Participant B, telemedicine is lifechanging because you don't have to fall in line at the hospital which prevents you from catching a disease from other patients.

*“Talagang life changing kasi ‘di mo na kailangang pumila. Sa pila, napakalaki ng exposure mo to other diseases at pati na sa meron nung mga patients na napila din. So, malaki ‘yung chance na magkaron ka rin ng ganung symptoms, so doble doble pa ‘yung sakit”.*

[it's really life changing because you don't have to fall in line where you could be exposed to other diseases that other patients may have. So, there is a big chance that you might acquire the same symptoms which could worsen your illness.] [Part B, p. 13, lines 83-85]

By using the telemedicine app, at least you know you're safe at home  
[Part B, p. 13, line 86]

Participant D tells how telemedicine became useful when his/her father needed to continue his check-up without leaving the house.

*“Nung nabubuhay pa si daddy ko during the pandemic, ilang beses na siyang na-stroke. Na-paralyze na rin siya at tsaka diabetic rin siya. So napakahalagang laging nakakapagsabi sa doctor na, “ganito po ‘yung nararamdaman niya”.*

[When my dad was still alive during the pandemic, he suffered a stroke several times. He was paralyzed and was also diabetic. So, it was important that we could always tell the doctor how he was. [Part D, p. 38, lines 127-130]

Participant D said that it kept his/her sick father safe from acquiring virus from the hospital.

*“Maganda [ang telemedicine] kasi ‘yung tatay ko paralyzed na, hindi na siya mobile. Hindi ko na siya madadala sa hospital para magpa-check at mae-expose pa siya sa virus doon”.*

[Telemedicine is good. My father was paralyzed; he could no longer move. I couldn't bring him to the hospital for check-up anymore and he would just be exposed to the virus.] [Part D, p. 38, lines 133-136]

### **Reduces physical contact**

While Participants C and E think telemedicine is safer because it does not require physical contact.

Participant C said that telemedicine is better especially during the pandemic because it does not expose him/her to people, which is safer for his/her baby.

*“Lalo ngayong pandemic, ‘di pa naman talagang walang Covid, napakaganda niyan lalo na’t may baby ako. ‘Di ako mapapahalo sa napakaraming tao”.*

[Especially during this pandemic (we still could not tell that there’s no more Covid), it’s really good especially that I have a baby. I would not be exposed to many people.] [Part C, p. 32, lines 143-144]

And for Participant E, going to the hospital is risky:

*“Kain oras at tsaka dami rin nakakasalamuha sa hospital, nakakatakot din kasing pumunta ng hospital”.*

[Going to the hospital] is time-consuming and scary because there are many people whom you’ll encounter.] [Part E, p. 47, lines 99-100]

### **Immediate**

Participants B, C, and E noted that consultation through telemedicine is faster because doctors could immediately give diagnosis and prescription. It also reduces their waiting times unlike when it’s face-to-face that they have to wait long before they are able to talk to the doctor.

### **Responds quickly**

Participant B shared that when s/he consulted online, the doctor was able to immediately give prescription for his/her children.

*“Nahirapan akong maghanap talaga ng good pedia for them [children] especially in the province, ang pedia limited lang. So, pipila pa tapos ang sasabihin after two days pa bago ka magkameron ng slot. So, I tried the telemedicine and instantly, nabigyan ako ng prescribed drug that is suitable*

*for my children. And at the same time, laging responsive dun sa medicine na binigay at gumaling, so no need to go to the hospital. Lifesaver 'yung ginawang consultation app”.*

[I had a hard time finding a good pediatrician for [the children] especially in the province where the number of pediatricians is limited. We'd fall in line then they would tell you that you'd have a slot after two days. I tried telemedicine, and instantly, I was given the prescribed drug suitable for my children. At the same time, they always responded to the medicines. That's why the consultation app is really a lifesaver.] [Part B, p. 13, lines 90-94]

Participant B also said that doctor online could immediately give diagnosis as well.

*“Nung pandemic nagkaroon ako ng child na may severe pneumonia. ‘Yung telemedicine ang nag-life save sa anak ko kasi they were able to diagnose it immediately. Kasi nga ang slot ng appointment nung pandemic, aabutin pa kami ng two days. Naghihintay pa din naman ako that time kaso napaka[tagal]... di ko na rin kinakayang mag-alaga kasi nilalagnat na talaga. Usually, 24 to 48 hours, eh ika-3rd day ka pa makakakuha ng slot”.*

[During the pandemic, I had a child who had severe pneumonia. Telemedicine saved my child's life because [the doctors] were able to diagnose it immediately. At that time, it would take two days to get a slot. Usually, [it took] 24 to 48 hours, and you could only get a slot on the 3rd day. I could still wait but I could no longer care for my child [on my own] anymore because she had very high fever.] [Part B, p. 16, lines 216-219]

Likewise, Participant E said that s/he received prescription right away.

*“Tulad nitong sa akin na UTI, ako’y binigyan ng referral. Sinend ko rin sa kanila ‘yung result. Tapos may reseta na agad sila”.*

[Just like with my UTI, they gave me a referral. I also sent them the result. Then, they immediately gave a prescription.] [Part E, p. 47, lines 66-67]

### **Faster transaction**

Participant C claimed that s/he was able to have her check-up immediately.

*“Sa akin naman, mas mabilis. Ang advantage dun, ‘yung talagang espesyalista din na kailangang kailangan ko... ‘sige, magpa-schedule ka’. Within that day, nakakapagpa-check up din ako kaagad kumpara lalo’t pandemic nun, ang hirap magpa-schedule”.*

[But for me, [telemedicine] is faster. The advantage is, for the specialist whom I really needed, I got to have my check-up immediately within the day. Unlike during the pandemic, it was hard to set a schedule.] [Part C, p. 30, lines 94-97]

Participant C added that when s/he consults online particularly for his/her baby, the response is also immediate.

*“Pwede kami mag-send sa Messenger niya. ‘Doktora, ano po kaya ito sa balat ni baby?’ Anong gagawin? Pakikita mo, halimbawa ‘yung video. Vvideo-han mo lang tapos ise-send mo sa kanya [doctor]. Kapag napanuod niya na, sasabihin sa’yo ‘yung dapat na gawin. ‘Yun ang kagandahan ng telemedicine”.*

[I could message [the doctor] via Messenger. “Doctor, what is it with my baby’s skin?”. What do I do? You show the doctor a video, for example, the

baby's reflux. When she's able to watch it, she'd tell you what to do, what must be done. That's what good about [telemedicine] [Part C, p. 32, lines 154-157]

*"Mabilis, mabilis ang action".*

[It's immediate, the action is very immediate.] [Part C, p. 32, line 166]

Participant E also finds using telemedicine faster than a face-to-face consultation.

*"Pag may pasok ay mas okay din po sa online. Gawa po kasi 'pag sa hospital, minsan po ay ang tagal maghintay. Minsan po ay matagal ang doctor. Ay dito po ba sa online eh mas mabilis po. Agad pong may nasagot at tsaka po 'pag call niya kahit nasa office po, ay di nasasagot po namin. Mas gusto ko talaga 'yung ganito 'yung online".*

[If there is work, it's better to consult online. If it's in the hospital, sometimes we wait for a long period. Sometimes, the doctor takes too long. It's faster when done online. The response is immediate. And if the [doctor] calls when I'm at the office, I could answer.] [Part E, p. 46, lines 43-45]

### **Similarity**

Participants A, B, and C said that telemedicine give them quality service just like a face-to-face consultation.

The same result was found by Chiang & Herbst (2022) who found no difference between video and in-person visits to explain malignancy-related clinical data to patients. The survey was conducted by the National Comprehensive Cancer

Network among almost 800 healthcare providers on their perspectives of telemedicine for patients with cancer.

### Similar experience

The participants attested that telemedicine gives a similar experience as face to face consultation.

*“Ganun pa rin naman siya kapag ‘yung actual kaharap ko siya face-to-face at tsaka kapag kausap ko siya sa Viber”.*

[It’s the same, when I talk to her face-to-face and when I talk to her through Viber] [Part A, p. 8, line 269]

*“Oo, quality. Ganun din naman ang gagawin dun eh”.*

[Yes, [same] quality. [The same kind of consultation] is done via telemedicine and face-to-face]. [Part B, p. 21, line 399]

*“Okay naman siya. Parang same...”*

[Telemedicine] is okay. It’s similar to [face-to-face consultation]. [Part C, p. 31, line 117]

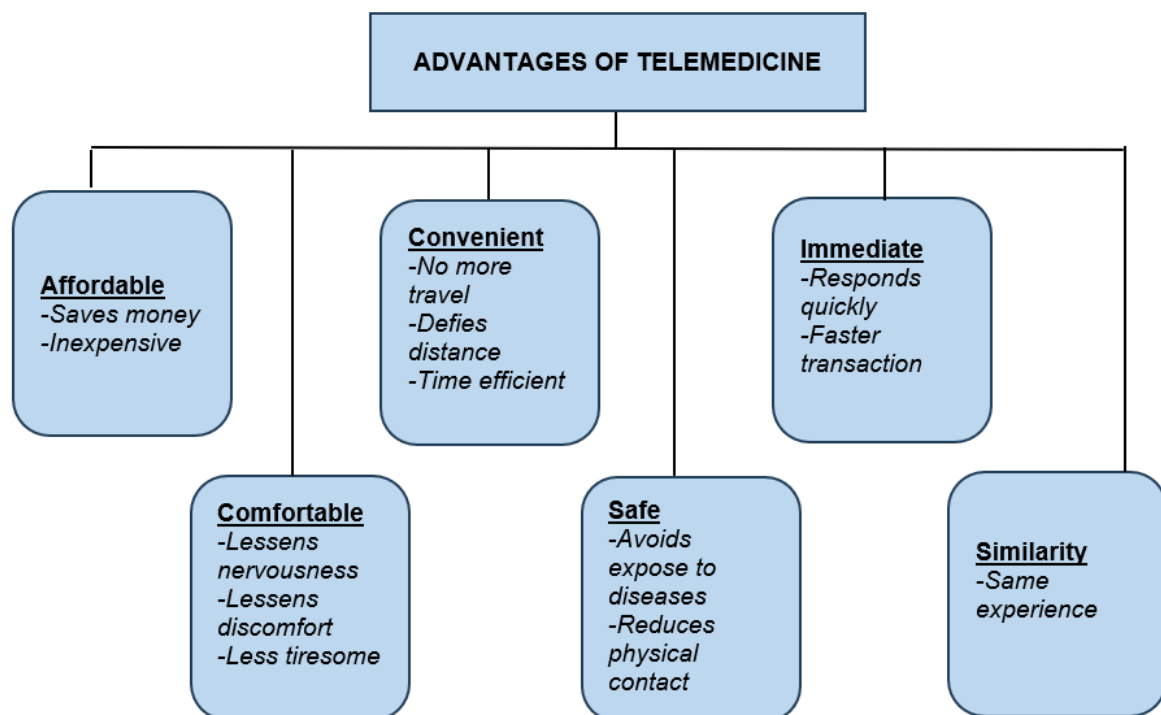
**Table 6.** Advantages of Using Telemedicine

Open Code	Axial Code	Thematic Code
it saves a lot of money (Part B, page 18, line 272)	Saves money	Affordable
So, firstly, it saves money (Part D, page 38, line 150)		
It’s really budget-friendly (Part B, page 22, line 415)	Inexpensive	
Teledmed, it’s actually cheaper by 200 pesos (Part C, page 33, line 171)		
I don’t feel it [nervous] when we’re just talking (Part A, page 4, line 132)	Lessens nervousness	Comfortable
I did not have a hard time (Part A, page 2, line 69)	Lessens discomfort	

The ambiance in the clinic is like of a hospital as compared to when you're at home which is comforting (Part C, page 31, lines 118-119)		
Yes, and tiredness because I travel (Part A, page 3, line 96)	Less tiresome	
it's possible, especially when travelling is tiresome (Part A, page 7, lines 224-225)		
What's good about Telemedicine is it's hassle-free (Part C, page 31, line 102)		
I don't have to travel (Part A, page 3, line 92)	No more travel	Convenient
I don't have to go there, to travel (Part D, page 38, line 150)		
your specialist is abroad, like this, I don't have to go there (Part C, page 31, line 127)	Defies distance	
So even though that my doctor was in Manila and I was in Pampanga, it became easy (Part D, page 38, lines 148-149)		
Telemedicine is time efficient for making appointments (Part B, page 15, line 151)	Time efficient	
it saves time (Part D, page 39, line 176)		
you don't have to fall in line where you could be exposed to other diseases (Part B, page 13, lines 83-84)	Avoids exposure to diseases	Safe
you're safe at home (Part B, page 13, line 86)		
He would just be exposed to the virus if ever I needed to bring him to the hospital (Part D, page 38, lines 134-135)		
you can avoid acquiring the virus and whatever (Part D, page 39, line 172)		
I would not be exposed to many people (Part C, page 32, line 144)	Reduces physical contact	
there's a lot of people whom you'll encounter in the hospital (Part E, page 47, line 99)		
prescription is easy on-the-go (Part B, page 12, line 42)	Responds quickly	Immediate
I tried the Telemedicine and instantly, I was given the prescribed drug (Part B, page 13, line 92)		
they're always responsive (Part B, page 13, line 93)		
they were able to diagnose it immediately (Part B, page 16, line 217)		
they immediately give prescription (Part E, page 47, line 67)		
Yes, the communication is very fast (Part B, page 13, line 83)	Faster transaction	
But for me, it's faster (Part C, page 30, lines 94-95)		

I got to have my check-up immediately within the day (Part C, page 30, lines 95-96)		
It's immediate, the action is very immediate (Part C, page 32, line 166)		
While when it's online, it's faster (Part E, page 46, line 44)		
response is immediate (Part E, page 46, line 45)		
Yes, it's the same, when I talk to her face-to-face and when I talk to her through Viber (Part A, page 8, line 269)	Same experience	Similarity
Yes, quality. Still, it's the same (Part B, page 21, line 399)		
It's like they're the same (Part C, page 31, line 117)		

**Figure 7. Benefits of Using Telemedicine**



In summary, the participants began using telemedicine because they experienced its advantages which include affordability, comfortability, convenience, safety, immediateness, and similarity. The participants are able to save more money because they no longer pay for travel expenses and fees online are cheaper. They feel more comfortable and relaxed by just being at home rather than being in the hospital or clinic where they sometimes feel nervous and experience discomfort

because of its ambiance. They also find it convenient since they no longer need to go out of their house, go to the hospital or clinic, and fall in line to make appointments. They feel it is also safer since they are just at home, which means they are not exposed to other patients outside who might be a carrier of the virus or could have a communicable disease. For them, it is also faster to transact through telemedicine because participants can do consultations and receive prescriptions immediately. Finally, they also think that the quality of service they get from telemedicine is similar to what they experience during face-to-face.

### **Views on the Challenges of Using Telemedicine**

However, participants cited several disadvantages that they experienced with telemedicine. They mentioned technical limitation, unavailability of doctors, lack of physical examination, and limited discussion and expression (Table 7 and Figure 7).

#### **Technical Limitation**

Participants A, B, and D stated that technical limitation and issues such as slow internet connection as well as low quality camera are problems encountered when consulting online. Participant D explained that low quality camera may not capture the accurate appearance of the patient. Bhaskar et al. (2020) claimed that telemedical consultations do not approach the same level of fidelity that an in-person physical exam yields, between physical exams, body language, vocal intonations, and odors.

## Slow Internet connection

Participant A shared that because of connectivity issues, his/her appointment with his/her doctor was interrupted.

*“Ito pala ang isang problem na na-encounter ko sa telemedicine. Naka-sched na ako halimbawa bukas. E di magpre-prepare ako, aagapan ko ng uwi ko sa bahay. Tapos hindi kami matutuloy kasi may problema nga sila sa net, sa connectivity. E di bukas daw ulit. Bumukas kami ng bumukas parang nakalimang araw kami na ganun”.*

[This is one problem I encountered with telemedicine. I was scheduled the next day [for a check-up]. So I prepared and went home early. However, we didn't push through because they had problem with their internet connectivity. So, it was rescheduled for the next day. It was actually rescheduled many times, like for five days.] [Part A, p. 9, lines 284-287]

Participant B shared also that s/he experienced having trouble using the telemedicine application because of Internet maintenance.

*“Sa Konsulta MD, dahil nga nagkaroon ng maintenance sa Internet, drawback ‘yung technical limitation. Because of Internet maintenance, ‘di mo ma-open ‘yung app. Nagklo-close agad”.*

[Since Konsulta MD had an internet maintenance, the technical limitation is also a drawback. Because of internet maintenance, you can't open the app. It closes immediately.] [Part B, p. 19, lines 313-314]

Likewise, Participant C, s/he sees poor Internet connectivity as a hindrance to telemedicine.

*“Ang problema lang kung halimbawa mahina ang Internet mo”.*

[The only problem is if for example, your Internet is slow.] [Part C, p. 31, lines 102-103]

### **Technical issues**

Meanwhile, Participant D said that technical issues like having a low quality camera makes him/her feel less convinced because the doctor might not be able to correctly examine what s/he sees online.

*“Hindi ako masyadong kumbinsido na [kapag] meron akong nararamdaman mache-check ako agad talaga dahil hindi siya face-to-face. [Pwedeng] may mga ibang symptoms pa pala sa katawan ko like my color, itsura ng mata, or something. Ewan ko kung tinitignan mga ‘yun. Hindi nakikita kasi panget ‘yung camera mo. O kaya ‘pag may pinakita kang halimbawa sugat or something, hindi nakikita”.*

[I’m not so convinced that when I’m feeling unwell, it could be fully examined online, maybe because it’s not face-to-face. For example, there may be other symptoms in my body like my color or my eyes, but I don’t know if these would be checked. If your camera is not so good or if you want to show a wound or something, these may not be seen.] [Part D, p. 39, lines 182-187]

### **Unavailability of Doctors**

Participants B and D stated that doctors also become unavailable at times, and doctors respond late due to other commitments.

### **Doctors are not available**

Participants B said the unavailability of doctors is a problem so one should strictly follow their schedule.

*“Ang parang disadvantage kasi, sometimes the doctors are not available. So, as much as possible, follow ka lang sa kanilang schedule na availability online. Pero ‘pag hindi, e di, there are still some options naman”.*

[However, its disadvantage is that sometimes the doctors are not available. So, as much as possible, you need to follow their schedule of availability online. But if not, there are still some options.] [Part B, p. 12, lines 38-39]

### **Doctors could not respond immediately**

Participant D said that because of other commitments, doctors respond to them late.

*“Ang downside ay may time na hindi kaagad makakasagot ‘yung doctor for some reason. Pandemya kaya busy rin sila. Tsaka may iba rin silang pasyenteng haharapin. So kailangan mo talagang mag-hintay ng sagot nila before ka mag-decide kung ano ‘yung dapat mong gawin”.*

[The downside is, that sometimes, the doctor couldn't respond immediately for some reasons. It was pandemic, they were busy and they had other patients to attend to. So, you really need to wait for their response before you decide on what should be done.] [Part D, p. 39, lines 178-181]

## **Lack of Physical Examination**

The lack of physical examination is another drawback, as mentioned by Participants A and B. In a study by Ladin et. al (2021), participants expressed concern about clinical effectiveness and limitations of virtual physical examinations. Additionally, Hwei and Octavius (2021) argued that telemedicine does not allow doctors to perform physical examination that feels like they are not doing a thorough consultation. They also said that it could affect the accuracy of diagnosis and treatment for the patient.

## **Self-description of symptoms**

Participant A said that her doctor only relies on how she describes what she feels but may not exactly see it because there's no physical examination.

*“Minsan, ako lang ang nag-describe at dun niya lang ibe-base ‘yung sasabihin niya rin sa akin kung okay ako. Samantalang kung nandun ako, kita niya mismo.*

[Sometimes, [the doctor] would tell me that I'm okay based on how I would describe my condition. Whereas if I am there, she could see it precisely.] [Part A, p. 5, lines 149-152]

Participant B, on the other hand, said that since there's no physical test, you have to do the basic examination by yourself at home.

*“Wala kang physical examination. Ikaw ang magpro-provide ng sarili mong physical examination tapos ibibigay mo lang ‘yung vital stats sa doctor. Sila na ‘yung mag e-evaluate”.*

[It doesn't have a physical examination. You will provide for your own physical examination and give your vital stats to the doctor for them to evaluate.] [Part B, p. 17, lines 244-246]

Participant B shared that she actually gets the oxygen and heart rate of her children before consulting online.

*“Ang nire-request nila, baka ako’y may devices na oximeter, ‘yung sa digital na heartrate. Pag may sipon, nag a-ask sila kung meron akong nebulizer kasi very prone nga sa bacteria at viruses ‘yung children. Nag a-ask kung meron kang portable nebulizer, bibigyan ka lang nila ng ampule para ma-disinfect ‘yung lungs ng children. So, nag a-advice kada telemedicine. Before mag-start ‘yung aming consultation, nagjo-jot notes na ako ng kanilang recent na oximeter rate, heart rate kasi nakakabili naman ng mura na digital”.*

[They ask me if have devices like oximeter, digital heart rate [monitor]. If my children have colds, they ask me if I have nebulizer since children are prone to bacteria and viruses. They ask me if I have a portable nebulizer, and they would give me an ampule to disinfect and relieve the lungs of my children. So, they advise me. Before consultation, I take note of my children's recent oximeter rate and heart rate. You could actually buy digital devices now at a low price.] [Part B, p. 15-16, lines 182-187]

### **Bypass some physical procedures**

Participant A related that there are cases like hers that need to be physically examined.

*“May mga sakit din na gaya nga nung akin na hindi pwedeng palageng telemedicine kasi may mga procedure na gagawin na kailangang nakikita talaga ng actual ng doctor”.*

[There are illnesses like mine that should not be consulted through telemedicine all the time because there are procedures which the doctor should actually do.] [Part A, p. 6, lines 203-205]

### **Limited discussion and expression**

Communicating online is also a challenge for Participants A and D because patients could hardly respond or describe how they feel compared to when a patient talks freely in a face-to-face conversation.

Bhaskar et al. (2020) suggested that the fidelity of technology involved with telemedical consults must continually iterate to reach the same level of fidelity and information that an in-person visit might yield.

### **Unable to elaborate details to doctor**

Participant A said that s/he finds it hard to ask his/her doctor for full details.

*“Meron din siyang disadvantage. Ako kasi ‘pag ganun ay madetalye ako. ‘Pag nagtanong, ‘pag nag-usisa sa doctor, madetalye ako. ‘Yun ang nawawala”.*

[It has also a disadvantage. I’m actually particular with details. When I ask my doctor, I’m particular with the details and that is what’s missing.] [Part A, p. 4, lines 132-133]

*“Sa telemedicine, hindi ko maidetalye ‘yung tanong ko”.*

[With telemedicine, I could not elaborate questions.] [Part A, p. 4, line 139]

Similarly, Participant D said that s/he can't express very well what s/he wants to say particularly when talking to his/her doctor via chat:

*“Pag chat, ang mahirap ay ‘yung hindi mo ma-express fully ‘yung gusto mong sabihin. Minsan may words ka na, ‘pa’no mo ba ‘to ide-describe?’ na mas madali kung maggaganito-ganito lang ako. At tsaka pakita ko sa kanya, ‘oh ganito ‘yung pasa ko, sobrang lake, nagkaganyan. ‘Di ko alam kung bakit’’. Instead titignan na lang niya, ide-describe ko pa”.*

[In chat you can't express fully what you wanted to say. Sometimes, you have words, how should it be described? It's easier when you would just show it [to the doctor], “This is how my bruise looks like it's huge. Instead of [the doctor] just looking at it, I still need to describe it [in telemedicine]. [Part D, p. 40, lines 208-212]

### **Doctors unable to discuss long with patient**

Participant A shared that since they are [doctor and her/him] just talking via phone or online, his/her doctor could not elaborate what s/he is discussing to him/her.

*“May limitation kapag kausap mo lang siya [doctor] sa phone or kahit video call ‘yan, ‘di siya makapagtagal, hindi niya ma-elaborate kung ano ‘yung ini-explain niya sa akin”.*

[There's a limitation when you are just talking to [the doctor] via phone or even video call. [The doctor] could not stay long, could not elaborate what s/he is explaining.] [Part A, p. 8, lines 269-271]

### **Hard to describe illness especially pain**

Participant D said that it's hard to communicate online when s/he can't describe well the pain when one is feeling unwell.

*“Yung pain, hindi ko ma-describe. “Doc, basta masakit. Ano pong klaseng sakit?”*

[I could not describe the pain. [I would say] “Doc, it just hurts”. [He would ask back] “What kind of pain?”.] [Part D, p. 40, lines 212-213]

*“So, mahirap din mag-communicate kapag talagang sobrang sama na ng pakiramdam mo. Hindi mo na mai-convey na talaga. Accurate pa ba ‘yung sinasabe mo sa doctor para ma-assess niya ng tama?”*

[It's hard to communicate when you are really ill. You cannot fully convey [what you want to say], if what you're telling the doctor is still accurate so that s/he could assess it accordingly.] [Part D, p. 40, lines 241-243]

Participant D also shared when her brother and his family got Covid, it was hard for them to respond to the nurses online who was monitoring their condition.

*“Kapitbahay ko lang kasi kapatid ko, silang pamilya nagkaroon ng Covid. So nandun sila, so iche-check sila, kakausapin ‘yung hipag ko. Ano ba ‘yung nararamdaman niya. Mino-monitor sila constantly. Ano na pong temperature ni ganito? Merong binibigay sa kanilang chart na fifill-up-an niya. Kaya lang may times na lahat sila kahit ‘yung batang maliliit ay meron [Covid].*

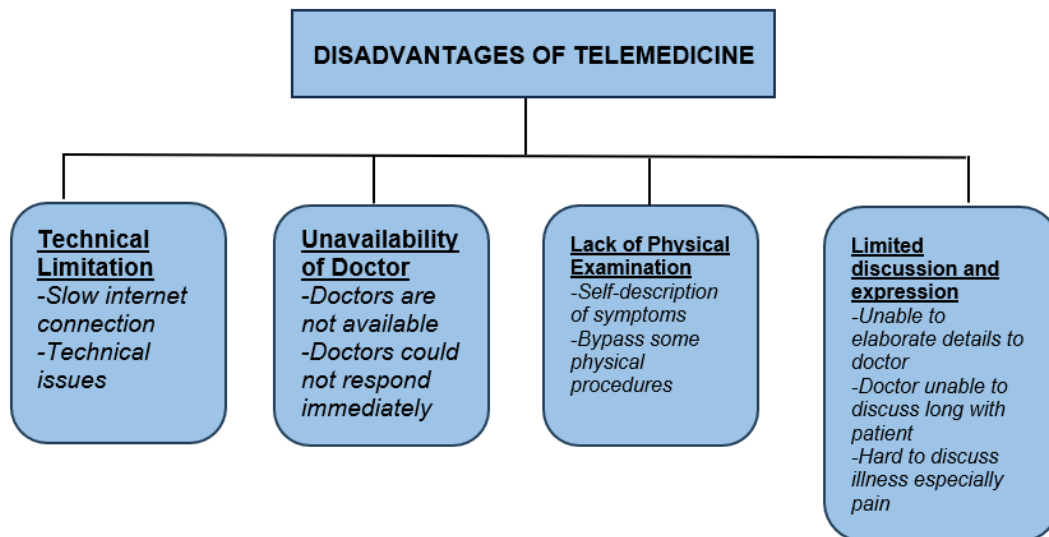
*So sobrang masama na 'yung pakiramdam ng hipag ko, hindi na rin niya maasikaso or siguro masagot 'yung chats'.*

[There was a time when my brother, who was just my neighbor, and his whole family got Covid. So, [the nurses] were talking to my sister-in-law and monitoring them online. Asking about the temperatures [of the family members]. They were given a chart to fill out. But there was a time when they all got [Covid], even the kids. My sister-in-law was really feeling unwell and she could no longer take care of things and respond to the chats.] [Part D, p. 40, lines 234-239]

**Table 7. Disadvantages of Using Telemedicine**

<b>Open Code</b>	<b>Axial Code</b>	<b>Thematic Code</b>
we didn't push through because they had problem with the net, with the connectivity (Part A, page 9, lines 285-286)	Slow internet connection	Technical limitation
Because of internet maintenance, you can't open the app (Part B, page 19, line 314)		
The only problem is if for example, your internet is slow, like that (Part C, page 31, lines 102-103)		
it's also a drawback, the technical limitation (Part B, page 19, lines 313-314)	Technical issues	
It can't be seen clearly because your camera is bad (Part D, page 39, line 185)		
sometimes the doctors are not available (Part B, page 12, line 38)	Doctors are not available	Unavailability of doctors
the doctor couldn't respond immediately for some reasons (Part D, page 39, lines 178-179)	Doctors could not respond immediately	
she [the doctor] would tell me that I'm okay which is only based on how I describe my condition (Part A, page 5, lines 149-150)	Self-description of symptoms	Lack physical examination
because there are procedures that need to be done (Part A, page 6, line 204)		
it doesn't have physical examination (Part B, page 17, line 245)	Bypass some physical procedures	
You will provide for your own physical examination and give your vital stats to the doctor (Part B, page 17, lines 245-246)		
I'm particular with the details and that's what's missing (Part A, page 4, line 133)	Unable to elaborate details to the doctor	Limited discussion and expression
I could not elaborate my question (Part A, page 4, line 139)		
you can't express fully what you wanted to say (Part D, page 40, line 209)		
she could not elaborate what she is discussing to me (Part A, page 8, line 271)	Doctor unable to discuss long with patient	
the pain, I can't describe it (Part D, page 40, line 212)	Hard to describe illness especially pain	
So it's like it's hard to communicate when it's like that, when you're really ill (Part D, page 40, lines 241-242)		

**Figure 8. The Challenges of Using Telemedicine**



In summary, while participants saw the benefits of using telemedicine, they also encountered some challenges. This made the participants adjust to the demand of the technology for health consultation.

Participants noted two major technical limitations which are slow Internet connection that disrupts the consultation process online and technical issues such as having low quality camera. Poor quality devices can alter the appearance of patients on screen which could affect how doctors examine and diagnose them.

Another problem is when doctors became unavailable because of other commitments with in-house patients that also result to late responses to their messages or call.

The lack of physical examination is also an obvious drawback of telemedicine which prompts the participants to self-describe their symptoms and bypass some physical procedures.

Lastly, discussion and expression are limited in telemedicine where participants struggle to explain in detail their health condition. Similarly, doctors could not discuss long with the patient when it's just via online.

To deal with these problems, participants needed to conform to the new schedule in case there is an interruption due to slow Internet connection. They were also more patient as they waited for the doctor's response about what to do with their symptoms. The participants were also more particular about what and how they feel which they would write down so they can openly discuss these with the doctor. There was also a need for them to purchase devices to note their oxygen and heart rates.

### **Views on Telemedicine as an Alternative for Healthcare**

Despite the challenges, participants claim that they are satisfied in using telemedicine because the benefits outweigh the disadvantages. They find it accessible and most applicable for less serious health cases. Hence, they continue using it even after pandemic (Table 8 and Figure 8).

Payan et al. (2022) noted that telemedicine convenience is an important facilitator to promote continued use and contribute to high satisfaction. These include reduced wait times, reduced travel costs, and fewer transportation-related issues particularly for patients with chronic illness or limited mobility.

Similarly, participants of this study have expressed satisfaction in consulting and said they will continue to use telemedicine even after pandemic.

Participants B and E highlighted the idea that it does not require them to go the hospital, fall in line, and wait for their turn for consultation. Participant D, on the other hand, emphasized that it serves as an alternative for those who can't easily go to the hospital like Filipinos who don't own cars and seniors who can barely move or

walk. As Bhaskar et al. (2020) argued, telemedicine could provide an alternative and easy-to-access service particularly among elderly patients with limited accessibility.

Further, Participants A and D said that telemedicine is a better alternative specifically for health cases that are common and less serious such as fever, diarrhea, or headache. A local study by Noceda et. al (2022) suggests that participants prefer telemedicine services rather than in-person consultations, especially in cases where they feel that their condition is not urgent and does not need extensive physical examination.

The participants' answers are explained in detail in the next section.

## **Satisfaction**

### **Telemedicine is good**

Participant B said that telemedicine is a good alternative to face-to-face consultation:

*“Oo, maganda talaga siyang alternative”.*

[Yes, [telemedicine] is really good as alternative.] [Part B, p. 21, line 381]

Likewise, Participants C and D think that telemedicine is good and beneficial.

As they attested:

*“Maganda ang telemedicine kasi halimbawa, may follow-up, actually ‘yung second check-up ko, follow-up ‘yun. So pipictur-an ko lang ‘yung second result after kong mainom ‘yung mga nireseta sa akin after a month”.*

[Telemedicine is really good because for example, if I want to follow up, I just take a picture of my [laboratory] result after I taking the prescribed medicine for a month.] [Part C, p. 29, lines 36-38]

*“Maganda naman siya. Talagang beneficial para sa lahat”.*

[Telemedicine] is really good. It is really beneficial to all.] [Part D, p. 41, line 273]

## **Accessibility**

### **Defies time**

Participant B said that there are still doctors who are online even at dawn:

“It’s very helpful when you can talk to them anytime through the consultation app or telemedicine app.” [Part B, p. 11, lines 36-37]

*“Anytime, kahit madaling araw, may online”.*

[You can use [telemedicine] anytime that. Even at dawn, there are doctors who are online.] [Part B, p. 20, line 349]

### **Defies space**

Participant E said that even if s/he’s in the office or when it is night time, s/he could still consult via telemedicine.

*“Hindi ka na lalabas. Hindi ka na pipila doon sa hospital ng matagal. Tsaka ‘yun nga anytime, kahit nasaan, kahit nasa office kami, kahit nandito sa bahay or kahit gabi na. Minsan kasi kahit gabi na, natawag pa din”.*

[You don’t have to go out from the house. You don’t need to fall in line in the hospital for a long time. Anytime, anywhere, even if we’re in the office or

at home, or even at night. Sometimes, even if it's already late at night, they [the medical staff] would still call.] [Part E, p. 46, lines 51-53]

### **Applicability**

#### **For less serious cases**

Meanwhile, Participants A and D argued that telemedicine is more appropriate for health cases that are less serious.

*“Itong telemedicine, napakaswak niya kung ang pag-uusapan natin ay ‘yun bang pangkaraniwang nararamdaman. ‘Di naman talaga sakit, ‘yung nilagnat, nagtae o kaya ay may nangati. ‘Di naman seryosong sakit. Nakakatulong siya”.*

[Telemedicine is perfect for common health conditions like fever, diarrhea, or if there's some itching. These are not really serious cases. Telemedicine helps.] [Part A, p. 6, lines 205-207]

For Participant D, telemedicine is helpful especially for children who are prone to catching diseases; old people who can barely walk; and Filipinos who don't have other means of transportation and someone to assist them.

*“Magandang alternative [ang telemedicine] lalo na kung ang nararamdaman mo lang naman [ay normal], masakit ulo mo or something like that. Pupunta ka pa ba sa hospital? Maganda ang telemedicine para sa mga bata na maliliit na posibleng mahawa sa hospital, mga magulang na sobrang tanda na, hindi na makalakad, mga Filipinos na walang kotse, o walang mag a-assist sa kanila”.*

[Yes, [telemedicine] is a good alternative especially if what you are feeling is just [normal], or if you were just panicking because your head aches or something like that. Will you still go to the hospital? [Telemedicine] is good for kids who could possibly get infected in the hospital, parents who are old, those who cannot walk, and Filipinos who don't have cars or don't have someone else to assist them.] [Part D, p. 42, lines 287-290]

## **Continuity**

### **Helpful even in post-pandemic**

Participant A relayed that his/her doctor suggested to use Viber when the doctor just needed to know how s/he is:

*“Pero kahit hanggang ngayon na wala na tayong mga lockdown, ‘pag tingin niya, ang kailangan lang naman niya eh kukumustahin ako, sasabihin niya sa akin, ‘yung next [consultation] mo, Viber na lang ulit.”*

[Even until now that there's no more lockdown, if my doctor thinks that she only needs to ask how I am, she would just say, “let's just have your next [consultation] through Viber”.] [Part A, p. 3, lines 90-91]

Participant B shares how telemedicine made it convenient for him/her to consult a doctor without the need to go to the hospital and wait for a slot, during the pandemic until now:

“So based on my experience using telemedicine, actually it's a lifesaver. Lifesaver since the pandemic until today because it's very convenient. Aside from going to the hospital, falling in line, getting a number and then reserving a slot to talk with your personal doctor, it's much more

convenient for me to consult via telemedicine when the symptoms usually seem normal yet still need to be consulted with licensed doctors for the most appropriate and latest medicines available in the pharmacy”. [Part B, p. 11, lines 31-36]

### **Still using telemedicine**

Participant B also shared how often s/he used telemedicine during pandemic particularly for her children.

*“Oo, parang nga nung pandemic, weekly, monthly ako nag[te-telemedicine] eh kasi meron akong 1 year old tapos pregnant ako”.*

[I used telemedicine every week and every month during the pandemic because I have a 1-year-old child and I was also pregnant.] [Part B, p. 20, lines 337-338]

*“Oo, nagco-consult ako online. ‘Yung, tulad neto lang, last two weeks sa Konsulta MD, sa pediatrician. Sa Lucena kasi, overcapacity na ang pedia.”*

[Yes, I still consult online. Just like two weeks ago, I consulted a pediatrician through Konsulta MD because in Lucena, there is an overcapacity [overload] in the *pedia*.] [Part B, p. 20, lines 343-344]

Similarly, Participant C used telemedicine when s/he needs to consult a doctor especially for his/her baby. S/he said that it’s safer for his/her child especially that s/he thinks that Covid may still recur:

*“Lalo ngayong pandemic, ‘di pa naman talagang walang Covid na masasabi. Lalo na’t may baby ako, napakaganda [ng telemedicine]. ‘Di ako mapapahalo sa napakaraming tao”.*

[Yes, and especially this pandemic, we still could not tell if there's no more Covid. As I have a baby, telemedicine is really good. I would not be exposed to many people.] [Part C, p. 32, lines 143-144]

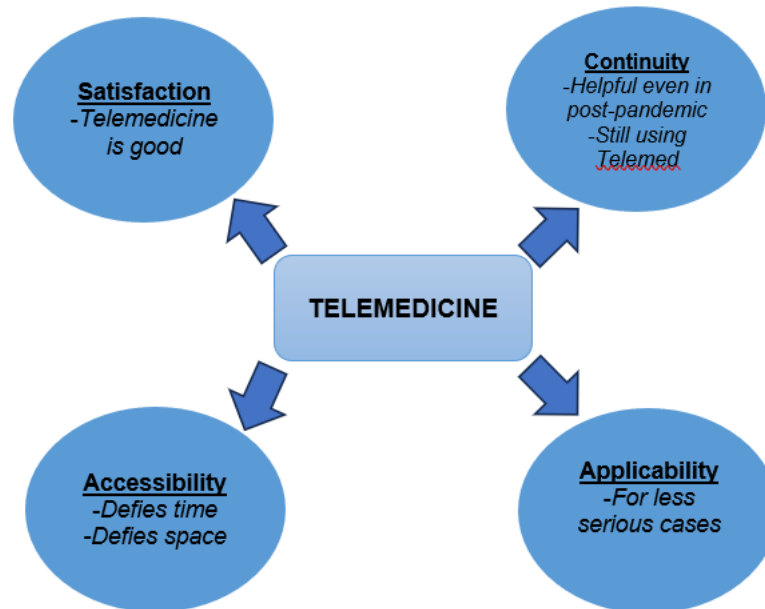
*“Oo. Ngayon, eh si [Doc] Con naman, nagcha-chat lang ako dun. Halimbawa, kagaya nung sa baby ko... ‘pipicturan ko’.*

[Yes. I just chat [Doc] Con if I have concerns with my baby... ‘I’ll take a picture’.] [Part C, p. 30, lines 72-73]

**Table 8. Participants' View on Telemedicine as an Alternative Healthcare**

<b>Open Code</b>	<b>Axial Code</b>	<b>Thematic Code</b>
Yes, it's really good as alternative (Part B, page 21, line 381)	Telemedicine is good	Satisfaction
it's good, Telemedicine is really good (Part C, page 29, line 36)		
It's really good (Part D, page 41, line 273)		
talk with them anytime through the consultation app or Telemedicine app (Part B, page 11, line 37)	Defies time	Accessibility
you can use it anytime that even at dawn (Part B, page 20, line 349)		
even at night (Part E, page 46, line 52)		
You don't have to go out from the house (Part E, page 46, line 51)	Defies space	
You don't need to fall in line (Part E, page 46, line 51)		
anytime, even anywhere (Part E, page 46, line 52)		
it is perfect for common health conditions (Part A, page 6, lines 205-206)	For less serious cases	Applicability
not really serious cases (Part A, page 6, lines 206-207)		
not possible for my case which the doctor needs to physically examine (Part A, page 7, lines 223-224)		
it's a good alternative especially if what you are feeling is just, you were just panicking (Part D, page 42, line 287)		
Lifesaver since the pandemic until today (Part B, page 11, lines 31-32)	Helpful even in post-pandemic	Continuity
we still could not tell that there's no Covid especially that I have a baby, it's really good (Part C, page 32, lines 143-144)		
But yes, even until now that there's no more lockdown (Part A, page 3, line 90)	Still using Telemed	
Yes, I still consult online (Part B, page 20, line 343)		
Yes. Now, I just chat [Dr.] Con (Part C, page 30, line 72)		

**Figure 9. Participants' Perception on Telemedicine as an Alternative for Healthcare**



In summary, after evaluating the pros and cons of telemedicine and their actual experiences, the participants think that telemedicine is a good alternative in health communication. They chose to continue using it even after the pandemic. In essence, the technology has changed the way they do things, yet they have also appropriated the technology to meet their purposes for satisfaction, accessibility, continuity, and applicability of medical service.

### **Suggestions/Recommendations on Improving Telemedicine**

As the participants have accepted that telemedicine is here to stay as an alternative healthcare, they gave several suggestions to help improve telemedicine in healthcare as seen in Figure 9 and Table 9.

Participants A and D said that doctors should allot more time in teleconsultations while participant B emphasized the need of more doctors with specializations so that it could accommodate patients with various health cases.

Participant B also recommends enabling patients to upload and keep a record of their health history so doctors could have a reference in giving diagnosis as well as treatment.

Also, a participant noted that what needs to be improved is the internet connectivity in the Philippines as well as its accessibility where all Filipinos can have equal opportunity to use telemedicine.

However, according to Anthony Jr. (2020), most developing countries, like the Philippines, may not be able to fully adopt telemedicine specifically in remote and rural areas due to low penetration of smart devices use and low expansion of 3G/4G internet networks. He suggested that governments should support and fund the healthcare systems in establishing telemedicine, laws and regulations needed. In connection to this, another participant said that it would be better if the telemedicine system seeks support from health organizations specifically in easing the costs of online consultations. Also, it was suggested that a team be made to facilitate and regulate the use of telemedicine in the country.

### **Time allotment**

#### **Needs more time**

Participant A suggests that more time should be allotted per patient who consults online:

*“Siguro mas maganda kung mas matagal pa ‘yung time na ia-allot para sa pasyente. ‘Yun, ‘yun siguro”.*

[Perhaps, it would be better if the time allotted for a patient [online] is longer.] [Part A, p. 5, line 165]

*“Yung time. Kasi ang alam ko, meron din kasi silang schedule kagaya ng pagbibigay nila sa akin ng schedule, “Oh, 12:00 ka, Ma’am”. Ibig sabihin, ‘yung nauna sa akin hanggang ganitong oras lang, ‘pag 12. Parang ganun. Ibig sabihin ‘yung next sa akin, parang ‘di kasi kami tumatagal ng beyond 15 minutes”.*

[The time. Because as I know, they have a schedule like when they give me a schedule, “Oh, 12:00 ka, Ma’am”. It means that the one prior to me is only until this hour, 12:00. Because it doesn’t take us more than 15 minutes [for consultation] [Part A, p. 5, lines 171-173]

Participant D proposes that doctors should strictly stick to the schedule and not be interrupted by other patients:

*“Kung ‘yung isang hospital, mag o-offer talaga siya ng telemedicine, kung schedule talaga ni doctor na umupo siya ng ganitong oras to ganitong oras, ‘yun talaga. Huwag siyang abalahin para dun sa mga pasyente niya na iba. Kumbaga, meron talagang allotted time na schedule para kumbaga, mahaharap talaga”.*

[If a hospital would offer telemedicine, the doctor should attend [to the patient online] based on the set schedule, from this time up to this time. That’s how it should be. S/he should not be disrupted for his/her other patients. S/he

should really have an allotted time to talk to his/her patients [online] [Part D, pp. 42-43, lines 320-324]

## **Expertise**

### **More specializations**

Participant B said that it's better when there are more doctors with different specializations:

*“Siguro, more specialization of doctors who will be involved in the telemedicine kasi ‘yung mga primary specialists lang ang naandun”.*

[Perhaps, more specialization of doctors who will be involved in the telemedicine because only primary specialists are [available] there.] [Part B, p. 24, lines 474-475]

## **Proper recording**

### **Keep personal health records for doctor's reference**

Participant B also said that telemedicine should allow patients to upload and keep their personal health record online so it would be easy for doctors to track their health history.

*“Dapat ‘yung personal health records mo naa-upload mo dun para ‘yun ang susubaybayan ng doctor, kahit sinong doctor. ‘Yun lang siguro ang drawback niya, wala kang personal health record. Tsaka ‘yun nga, technical issues, tsaka ‘yung history ng mga consultation mo kasi importante alam ng doctor ‘yung history mo eh. Hindi ‘yung paulit-ulit na once. Halimbawa dun sa video call, tsaka lang siya nagtatanong ng history. Wala siyang hawak na*

*record. Dapat may feature ‘yung app na mabra-browse niya ‘yung history record, health record mo”.*

[Telemedicine app] should let you upload your personal health records so that any doctor could keep track on it. Perhaps, having no personal health record is its only drawback as well as technical issues. Because it's important that the doctor is aware of your history. So, you won't have to repeat discussing it [during consultations]. For example, in a video call, the doctor would only then ask you about the history because s/he doesn't have a record. The [telemedicine app] should have a feature in which the doctor could browse through your history record or your health record.] [Part B, p. 25, lines 519-524]

### **Affiliation to health organizations**

#### **Collaboration with HMOs and government agencies**

Moreover, Participant B also suggested that telemedicine can partner with Health Maintenance Organizations (HMOs) and other government agencies such as PhilHealth so that patients could have discounts:

*“Tapos, kung isa pang feature na kailangan nila para mas ma-use sila frequently at widely, baka pwede silang maki-collaborate sa PhilHealth for discounts. Kahit nga ‘yung mga HMOs, ‘yung health card, dapat maki-affiliate sila para at least minimal lang ‘yung [charges]. At the same time, they'll cater to more patients kasi nga available ‘yung mga health card ng marami. Sayang din kasi, ‘di ba. Kaya lang naman nagtyayaga ‘yung ibang pasyente pumila sa hospital talaga, affiliated sila sa HMO”.*

[If there's one more feature so that [telemedicine] would be used frequently and widely [by patients], maybe they could collaborate with PhilHealth for discounts. Even the HMOs, health card, they should affiliate with them so [charges] will at least be minimal. At the same time, they could to cater more patients because their health cards are available. The reason why other patients patiently fall in line in hospitals is just because they are affiliated with HMO.] [Part B, pp. 26-27, lines 557-561]

### **Additional feature**

#### **Has video call**

Meanwhile, Participant C proposes that all telemedicine apps should have an option for video call.

*“Sana lahat ng telemedicine [app], may video call”.*

[I wish that all telemedicine [app] has video call.] [Part C, p. 33, lines 186-187]

#### **Has section for patient's health history**

Participant B wished that telemedicine apps have an additional feature where doctors could browse through the patient's health record.

*“Dapat may feature ‘yung app na mabra-browse niya ‘yung history record, health record mo”.*

[The [telemedicine] app should have a feature in which the doctor could browse through your history record or your health record]. [Part B, p. 25, lines 523-524]

## **Connectivity**

### **Improvement of Internet connection**

Participant D said that it's the internet connection that should be improved:

*“Ang mas maganda kasing i-improve sa Pilipinas, ‘yung internet connection eh”.*

[The Internet connection in the Philippines should be improved.] [Part D, p. 41, line 266]

*“So ‘yun, maganda talaga siya. Kailangan lang talaga siguro ma-improve ‘yung mga infrastructure sa Pilipinas para dun sa Internet”.*

[So, [telemedicine] is really good. It's just that, we really need to improve the infrastructures for the internet in the Philippines]. [Part D, p. 42, lines 294-295]

## **Adequate Work force**

### **Reinforcement of system/management**

Participant D also proposed that the system in the hospitals be developed since doctors are limited.

*“Naiintindihan rin naman natin, sa public talagang mahirap, punong puno. Tapos ‘yung mga doctor, ‘di rin naman ganun karami. So ‘yun, sa sistema na lang rin siguro sa mga hospitals lalo na kung public”.*

[We do understand that of course in public [hospitals], it's really hard when its crowded. And there are few doctors. So perhaps it's the system in

the hospitals especially if it's public [that should be changed]. [Part D, p. 42, lines 317-320]

### **Establishment of Telemedicine team**

Hence, Participant D recommends that there should be a team solely responsible in catering to telemedicine patients.

*“Kailangan talaga ng, kumbaga, dedicated team na para lang talaga dun siya sa telemedicine”.*

[There should be a dedicated team just for telemedicine]. [Part D, p. 42, line 320]

### **Accessibility**

#### **Improve accessibility**

Finally, Participant D said that telemedicine applications should be made accessible to every Filipino.

*“So, bukod sa Internet connection, siguro ‘yung mga applications na maging accessible siya...”*

[So apart from the Internet connection, the applications can be made accessible [to all Filipinos] [Part D, p. 43, lines 341-342]

As she explained:

*“Sa mga Filipino o kaya sa barangay, kahit sa barangay man lang, magkaroon ng system para sa mga walang [those who don't have much]... though maraming mga Filipino may access sa technology, hindi pa rin lahat [may access sa telemedicine]”.*

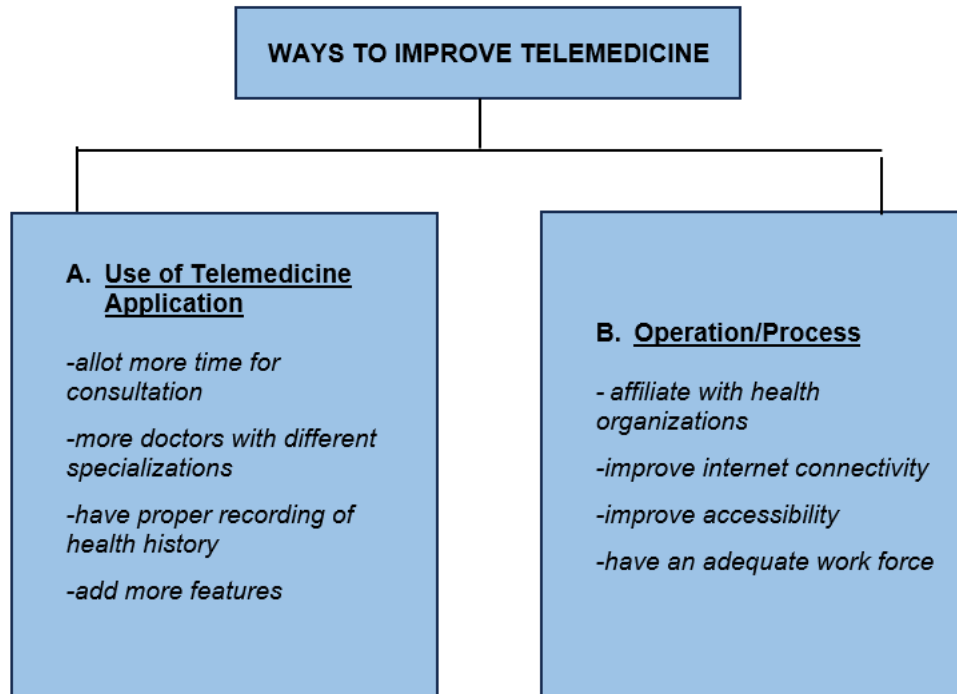
[To Filipinos or even just in the barangay, to have a system for those who have nothing... though there are many Filipinos who have access to technology, still, not everyone has [telemedicine]. [Part D, p. 43, lines 348-350]

**Table 9.** *Participants' Recommendations on Improving Telemedicine*

<b>Open Code</b>	<b>Axial Code</b>	<b>Thematic Code</b>
time allotted for a patient is longer (Part A, page 5, line 165)	Needs more time	Time allotment
He/she should really have an allotted time to show up (Part D, page 43, line 323)		
more specialization of doctors (Part B, page 24, line 474)	More specializations	Expertise
only primary specialists are there (Part B, page 24, line 475)		
it should let you upload your personal health records so that any doctor could keep track on it (Part B, page 25, lines 519-520)	Keep personal health records for doctor's reference	Proper recording
having no personal health record is its only drawback (Part B, page 25, line 520)		
maybe they could collaborate with PhilHealth for discounts (Part B, page 26, line 558)	Collaboration with HMOs and government agencies	Affiliation to health organizations
Even the HMOs, health card, they should affiliate with them so [charges] will at least be minimal (Part B, page 26, line 559)		
I wish that all Telemedicine [app] has video call (Part C, page 33, lines 186-187)	Has video call	Additional feature
could browse through your history record (Part B, page 25, line 524)	Has section for patient's health history	
what is better to improve in the Philippines is the internet connection (Part D, page 41, line 266)	Improvement of internet connection	Connectivity
improve the infrastructures for the internet in the Philippines. (Part D, page 42, lines 294-295)		
it's the system in the hospitals (Part D, page 42, line 319)	Reinforcement of the system/management	Adequate work force
There should be a dedicated team just for the Telemedicine (Part D, page 42, line 320)	Establishment of Telemedicine team	
the applications be made accessible (Part D, page 43, lines 341-342)	Improve accessibility	Accessibility

To have a system so that those who have nothing (Part D, page 43, line 348)		
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**Figure 10.** *Ways to Improve Telemedicine as Suggested by the Participants*



In summary, as the participants have accepted that telemedicine is here to stay as an alternative healthcare, they gave several suggestions to help improve telemedicine in healthcare.

The participants suggested that more time be allotted for consultation. They said doctors have shorter period online which discourages them to ask more questions. Another is to have more doctors with different specializations so that patients could connect to the most appropriate physician for their case.

They also suggest for it to have proper recording of health history so that doctors could have useful reference when they do the assessment and follow-up consultations. Lastly, they said that telemedicine applications should consistently

enable video consultation and create a section for patient's health profile which the doctor could browse through.

In terms of improving the process, the participants proposed that it partners with health organizations that could financially support the patient by providing discounts in the expenses. They also suggest that infrastructures or information communication technologies (ICTs) be improved as well as the Internet connection in the country to avoid interruptions during online consultation. Another is to improve accessibility so that Filipinos across regions could have equal access to telemedicine. Finally, they also said that a telemedicine team be established who would focus on catering patients online.

## CHAPTER V

### SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The pervasive use of the Internet has brought an innovative way of managing healthcare across regions. Telemedicine in particular has become significant during the Covid-19 Pandemic. Hence, the study primarily aims to answer the question: How do the health patients view and use telemedicine for primary healthcare in Lucena City?

Specifically, it sought to answer the following questions:

1. Why and how did the patients communicate using telemedicine?
2. How do they view communication via telemedicine vis-à-vis consulting face-to-face?
3. How do they view telemedicine as an alternative for healthcare?
4. How can telemedicine be enhanced as alternative health communication?

The study is a qualitative research that used the social determinism and the social construction of theory as theoretical underpinnings.

The cases of five (5) participants from Lucena City were analyzed from February 2023 to March 2023. The participants were interviewed online and their narratives were coded using three basic types of coding, namely: open coding, axial coding, and thematic coding.

Highlights of the findings are the following:

#### **Use of Telemedicine**

Participants of the study have started using telemedicine during the Covid-19 pandemic. Some of them even created an account in Viber while others used their

existing accounts in Messenger to connect to their doctors. Typically, before they are able to talk to their doctor, they communicate first with the secretary and ask for a schedule. But, sometimes, they could just directly message or chat their health concerns or send their laboratory results to the physician in a form of either PDF or scanned file.

Their common reasons why they subscribe to telemedicine are 1) for consultation/check-up; 2) for sending/receiving laboratory and diagnosis results; and 3) for getting prescriptions.

In summary, the pandemic compelled the participants to use telemedicine to continue consultation, send laboratory results, and to receive prescriptions. They had to create applications such as Viber or shift their use of messenger and video chats that would help them connect with their doctors or the nurses. They had to learn the use of these applications as well as new ones (e.g., scanning of results, transforming images into pdf files) so they could maximize the potentials of these technologies.

### **Views on Telemedicine**

When the participants have been using telemedicine for some time, they began appreciating its advantages. Overall, they said that its use was affordable, comfortable, convenient, safe, and immediate.

The participants are able to save more money because they no longer pay for travel expenses and fees online are less expensive. They feel more comfortable and relaxed by just being at home rather than being in the hospital or clinic where they sometimes feel nervous and experience discomfort because of the hospital ambiance. They also find it convenient since they no longer need to go out of their house, go to the hospital or clinic, and fall in line to make appointments. It's also

safer since they are just at home which means they are not exposed to other patients outside who might be a carrier of the virus or could have a communicable disease. Telemedicine also enables faster transaction where participants are able to have their consultations and prescriptions immediately. Finally, they think that the quality of service they get from telemedicine is similar to what they experience when they consult face-to-face.

However, participants cited some disadvantages that they experienced with telemedicine. They mentioned having technical issues, unavailability of doctors, and difficulty in describing one's condition without the face-to-face consultation.

Participants noted two major technical limitations which are slow internet connection that disrupts the consultation process online and technical issues such as having low quality camera. Poor quality devices can alter the appearance of patients on screen which could affect how doctors examine and diagnose them. Another problem is when doctors became unavailable because of other commitments with in-house patients that also results to late responses to their messages or call. The lack of physical examination is also an obvious drawback of telemedicine which prompts the participants to self-describe their symptoms and bypass some physical procedures. Lastly, discussion and expression are limited in telemedicine where participants struggle to explain in detail their health condition. Similarly, doctors could not discuss long with the patient when it's just via online.

### **Views on Telemedicine as Alternative**

Despite the challenges, participants claimed that they are satisfied in using telemedicine because the benefits outweigh the disadvantages. They find it

accessible and most applicable for less serious health cases. Hence, they continue using it even after pandemic.

Participants said they are satisfied and think that telemedicine is a good alternative for basic healthcare primarily because it's accessible. They can easily connect to their doctors regardless of the time and place. Although, they commonly recommend telemedicine for less serious health cases that don't necessarily need urgent physical examination. Nevertheless, participants especially those who are working and have children or parent with health condition claim that they still use telemedicine even after the pandemic since it's more convenient and safer.

After evaluating the pros and cons of telemedicine and their actual experience of it, the participants think that telemedicine is a good alternative in health communication. They chose to continue using it even after the pandemic. In essence, the technology has changed the way they do things, yet they have also appropriated the technology to meet their purposes for satisfaction, accessibility, continuity, and applicability of medical service.

### **Ways to Improve Telemedicine**

With the acceptance of telemedicine in their healthcare system, the participants gave recommendations to improve its efficient and effective use.

The participants suggested that more time be allotted for consultation. They said doctors have shorter period online which discourages them to ask more questions. Another is to have more doctors with different specializations so that patients could connect to the most appropriate physician for their case. They also suggest for it to have proper recording of health history so that doctors could have useful reference when they do the assessment and follow-up consultation. Lastly,

they said that telemedicine applications should consistently enable video consultation and create a section for patient's health profile which the doctor could browse through.

While in terms of improving its process, the participants proposed that telemedicine partners with health organizations that could financially support the patient by providing discounts in the expenses. They also suggest that infrastructures or information communication technologies (ICTs) be improved as well as the internet connection in the country to avoid interruptions during online consultation. Another is to improve accessibility so that Filipinos across regions could have equal access to telemedicine. Finally, they said that a telemedicine team be established who would focus on catering patients online.

## CONCLUSION

Since the outbreak of the Covid-19 pandemic, participants officially began shifting from face-to-face visits to online consultation. This was primarily because they needed to continuously connect with their doctors amid the pandemic.

They became familiar with telemedicine in different ways: 1) it was advised by the doctor; 2) it was seen on Facebook; and 3) it has become prevalent even at work as well as in their Church.

From the conventional manner of visiting the doctor in their clinics, participants needed to learn and adapt to this alternative way because it was necessary in the time of pandemic. Some of them who never had Viber were even obliged to create one and some extended the use of their Messenger accounts to constantly talk to their doctors. And because telemedicine is digital in nature, which lacks physical examination, participants were pushed to become technology savvy and more diligent in monitoring their health by carefully taking note of their symptoms to relay to the doctors, such as their oxygen and heart rates.

Hence, due to its limitations, participants had to adjust to the demands of technology for health consultation. Nonetheless, the participants eventually embraced the transformation and are satisfied with the use of telemedicine that even after the pandemic, they are still using it. They now view it as a good alternative for basic healthcare mainly because it's more convenient, faster, safer, and in many cases, cheaper. So, while telemedicine initially compelled them to use the technology, they also had the choice on what technology to use or a combination thereof. They also tried to improvise so as to overcome any limitations that would

help them transact with their doctors or nurses in the most efficient and effective ways.

## **Implications and Recommendations**

### **For Communication Practitioners**

- Consultations through telemedicine is shorter; thus, discussions and expressions are limited. It is suggested that a fixed time be set depending on the patient's case so as not to constrain the communication between the patient and doctor.
- Delayed feedback of doctors is also a problem. Hence, it is suggested that an adequate work force solely responsible for accommodating incoming queries and/or messages be established.
- Or a more viable alternative is short-term trainings on medical communication among health personnel staff such as nurses on how to better communicate with patients. Short trainings on listening to relayed information about the symptoms from medical staff can be initiated.
- Short-term training of some caregivers of sick people on how to better communicate their symptoms to the doctor can be done.
- There should be more information and training on the new media technology being used for telemedicine for patients, caregivers, and even medical personnel, so they can use these more accurately and effectively to communicate with each other.
- Document best practices in telemedicine for various kinds of sickness and perhaps a protocol on consultations.

### **For Policymaking**

- The lack of proper recording of patient's health information is a problem. Therefore, it is recommended that telemedicine channels provide a reliable and convenient storage where patients could safely keep their file.
- Patients freely send their personal files such as laboratory results online. It is therefore recommended to formulate and implement policies which would secure any shared data online.
- Communication guidelines on telemedicine communication can be established by a national body.

### **For Future Research**

- Examine the different platforms used in telemedicine whereas results can be a basis in improving its feature and settings for a more efficient communication between the patient and doctor online.
- Further studies be made focusing on the telemedicine system whereas findings can be useful reference in enhancing the country's information communication technologies (ICTs) for healthcare.
- Conduct evaluation among telemedicine users from rural places to improve its accessibility keeping it as a good alternative for basic healthcare for all sectors.
- Further studies can be done on the communication process of telemedicine to reinforce standards and policies about its use and for health communication in general.

- A phenomenological study on the experiences of different sectors using telemedicine – the differently abled, senior citizens, patients with terminal sickness, and even the emotionally challenged.

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**APPENDIX A**  
**PARTICIPANT CONSENT FORM**

Dear Ma'am/Sir,

Greetings of Peace!

I am **KORINA MARIE N. ALIBUYOG**, a Master of Development Communication student at the University of the Philippines Open University and is currently conducting a research titled **“DIGITAL TECHNOLOGY FOR HEALTH: LIVED EXPERIENCES OF HEALTH PATIENTS COMMUNICATING USING TELEMEDICINE FOR PRIMARY HEALTH CARE IN LUCENA CITY, PHILIPPINES”**. The study primarily aims to know how the lived experiences of health patients are in using Telemedicine for their basic healthcare.

In line with this, I would like to respectfully ask for your permission to be one of my respondents as you are identified as qualified based on the set criteria. This is also to ask for your consent that once you have agreed on this and the interview pushed through, our discussion will be recorded and documented for reference. Rest assured that any information or details shared shall only be used for the purposes of this study.

Thank you very much!

Respectfully yours,

**KORINA MARIE N. ALIBUYOG**  
Researcher

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If you wish to concur to this, I would like to request for your signature (printed or e-signature) over your complete name to be put in the blank below.

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**Respondent**

## **APPENDIX B**

### **GUIDE QUESTIONS**

1. How was your experience in using telemedicine?
2. How did you become familiar with it? When was the first time you used it?
3. How do you perceive telemedicine?
4. Do you think that telemedicine is a good alternative for healthcare? Do you still use telemedicine even after the pandemic?
5. Were there any problems you have encountered while using it?
6. What can you recommend or suggest to improve the use of telemedicine?