

Private Patients Perspective on the Use of Telemedicine at Times of COVID-19 Pandemic

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Abstract: Online consultation or telemedicine is one of the major methodology utilized by physicians to see their patients who opted to stay at their respective homes because of fear of COVID-19. There are some advantages and disadvantages using this platform and perceptions from different groups of people may vary. As cited by Menon et al. (2016), there are burdens in the implementation of telemedicine but there are also advocates of its good effect that is expected to increase patient's satisfaction and the good assistance to the family. For many of the private patients, telemedicine is the only safest way they could connect and seek consultation from their physicians but how about their perception on the prompt enactment of these telemedicine? It is important therefore to document the perspective of the recipients of telemedicine, the private patients, and be able to find out how prepared they are in this platform of healthcare service delivery. To determine their perception on the level of preparedness, a validated questionnaire was used. The result of the study shows that private patients are prepared for telemedicine, however, there are certain parameters that needs to be improved for a more steadfast online consultation experienced. They perceived that internet connectivity and the quality of service are fractions that needs to be evaluated while comfort, safety, and affordability are the perceived benefits they could get. They also perceived that telemedicine is applicable only for non-critical patients and for follow-up consultation.

Keywords: Online consultation, telemedicine, private patient perception, COVID-19 pandemic.

1. INTRODUCTION

In 1998, the National Telemedicine Service Project by the National Telehealth Center (NTHC) was established and it marks a milestone in the growth of telemedicine in the Philippines. After 22 years from its conception, telemedicine is not yet a full-blown platform because of some critical steps to be taken to cover all important aspects in this new enterprise. Most of the load in making this concept into reality lies on the hands of healthcare service providers. As stated by Macabasag et al. (2016 p.8), the "literature reveals simultaneous top-down and bottom-up approaches for successful telemedicine implementation that include capacitating the local health workers and strengthening the incorporation of telemedicine into the traditional health system". Identification of different factors that may affect the implementation of telemedicine must be done to properly address it and implement mitigation strategies.

Pasco (2016), noted that in order to ensure success in the implementation of telemedicine among users, substantial paces shall be employed like effective leaders, program for support system enhancement, and communication process constancy. This statement reiterate the importance of good leadership to prepare the system for a meaningful delivery of healthcare service. This also shows that manpower is a major factor to be measured and be given utmost consideration in the planning phase. It is further supported by the results of the study of Suzuki et al (2020) stating that "when predicting future demand for telemedicine, we suggest that the analysis should include the number of future doctors and nurses in the target country."

It is reported by Weinstein et al. (2014) that in recent years, mobile health has been developing and there is a big chances of innovation that will transform the future of healthcare. In the first quarter of 2020, it was noted that telemedicine has an upward trend when cases of COVID-19 rises in the Philippines. Thus, at this time of COVID-19 pandemic, it very important to assess the readiness of the healthcare providers in telemedicine implementation and the preparedness of the patients to accept this platform. It involves careful inspection of the availability of technology, healthcare providers, online connectivity, money, time, and the quality of service to the patients. The need for technology and online connectivity in telemedicine is mentioned in the study of Macrohon & Cristobal (2011), stating that the system in healthcare delivery may be made better using technology that are available and within reach to the patients. Another study, the work of Alis et al. (2009 p.246), supports that online connectivity is one of the major factors to be considered in telemedicine. He states that the “synergy of mobile monitoring and fluctuation analysis presents a powerful platform to reach remote, underserved communities with poor or nonexistent wired communication structures. It is likely to be essential in the development of new mobile diagnostic and prognostic measures.” (Alis et al. 2009 p.246).

While most of the physician utilized telemedicine as an alternative methodology to reach people who are hesitant to go to the hospital for consultation, a lot of private patients are still asking the efficiency of online consultation. This is the right time to assess the preparedness of the private patients on how prepared they are in this platform of healthcare service delivery. During this time, their perception on the level of preparedness matters most because they are the recipient of this project. The major objective of this study is to determine the over-all level of preparedness of private patients to telemedicine implementation. Specifically, it seeks to find out the perceptions of private patients to telemedicine preparedness in terms of manpower, technology, internet connectivity, process, platform, quality of service, and the benefits and disadvantages. Results of this study is an important data to be used in planning for the actions and activities to be taken now that utilization of telemedicine in Quezon province is quickly rising. From the result of the study conducted by Pasco (2016 p. 6), it was concluded that telemedicine is feasible in the Philippines. This is just a matter of reshaping the practices and integrating best possible initiatives that will help its successful implementation.

2. METHODOLOGY

This study was conducted last April-June, 2020 at Quezon province at times where cases of COVID-19 due to SARS-CoV-2 is constantly rising in the entire country. With the support of the target respondents and the administrators of the hospital where the study was conducted, it pushed through with the following elements.

Research Design

The study utilized a descriptive quantitative design which is a scientific method to determine the relationship between the independent and dependent variables after collection of numeric data using a structured research instrument.

Population and Sampling Techniques

To gather data from private patients, an online survey tool was used to assess their preparedness in telemedicine which was given to them after they have scheduled for an online consultation. Purposively, all private patients are asked to become a respondents but only those who are willing to participate are given the survey materials. Out of 826 patient ages 21-59 year old, 99% have submitted back the questionnaire (n=819).

Instrumentation

The researchers used a validated online questionnaires composed of 3 sections with 5 statement each. The different sections of the questionnaires are designed to determine the preparedness as perceived of private patients in terms of manpower, technology, internet connectivity, process, and platform; benefits; and disadvantages of telemedicine.

Data Analysis

The gathered data was analyzed and interpreted using a 4-point Likert scale with the options Well-prepared (4), Prepared (3), Slightly-prepared (2), and Not-prepared (1).

Ethical Considerations

Ethical considerations were observed to ensure confidentiality and anonymity in handling the data. Consent from the respondents are taken and the proceedings were explained thoroughly before the conduct of study.

3. RESULTS AND DISCUSSION

Table 1: Over-all Preparedness for Telemedicine as Perceived by Private Patients

Prepared in Terms of	Weighted Mean	Description
1. Manpower	2.01	Prepared
2. Technology	2.01	Prepared
3. Internet Connectivity	2.85	Slightly Prepared
4. Process	2.01	Prepared
5. Platform	2.01	Prepared
Over-all Weighted Mean:	2.18	Prepared

Legend: Well-prepared=1.0-1.75; Prepared= 1.76-2.50; Slightly-prepared= 2.51-3.25; Not-prepared=3.26-4.0

The result on Table 1 shows the over-all preparedness for telemedicine as perceived by private patients with an average weighted mean of 2.18. It illustrates that the private patients perceived that we are prepared in terms of manpower, technology, process, and platform but we are still slightly prepared in internet connectivity.

Table 2: Perceived Benefits of Telemedicine

Its benefits are:	Weighted Mean	Description
1. Affordability	2.01	Agree
2. Offers family interaction	2.98	Disagree
3. Safety	2.00	Agree
4. Comfort at home	2.00	Agree
5. Most ideal for follow-up consultation	2.01	Agree
Over-all Weighted Mean:	2.20	Agree

Legend: Strongly Agree=1.0-1.75; Agree= 1.76-2.50; Disagree= 2.51-3.25; Strongly Disagree=3.26-4.0

Table 2 shows the perception of private patients about the benefits of telemedicine. They agree that its benefits are affordability, safety, comfort at home, and ideal for follow-up consultation. However, they disagree that it offers family interaction.

Table 3: Perceived Disadvantages of Telemedicine

Disadvantageous because	Weighted Mean	Description
1. it is not ideal for critical cases/illness	2.00	Agree
2. assessment is not complete	2.85	Disagree
3. it offers not the same quality of service (less)	2.15	Agree
4. internet connection is not stable	2.02	Agree
5. there is no patient-doctor interaction	2.97	Disagree
Over-all Weighted Mean:	2.40	Agree

Legend: Strongly Agree=1.0-1.75; Agree= 1.76-2.50; Disagree= 2.51-3.25; Strongly Disagree=3.26-4.0

Table 3 presents the disadvantages of telemedicine as perceived by private patients. They agree that it is disadvantageous because it is not ideal for critical cases/ illness; it offers not the same quality of service; and internet connection is not stable. They disagree on the statement that assessment is not complete and there is no patient-doctor interaction in telemedicine.

4. DISCUSSION

This study aims to determine preparedness in telemedicine as perceived by the private patients. Specifically, it seeks to find out the perceptions in telemedicine preparedness in terms of manpower, internet connectivity, process, platform, and quality of service. It also pursue to determine the benefits and disadvantages of telemedicine. The result shows that the respondents perceived that over-all, we are prepared for telemedicine. However, there are factors that needs to be evaluated particularly the internet connectivity. It is aligned with the study of Alis et al. (2009 p.246), noted that mobile connectivity of every individual is a key factor in telemedicine success. Internet connectivity is a must in telemedicine and we cannot do it if the connection is unstable. A more advance internet connectivity in terms of stability and speed is a major requirement for online processes which is still missing in this current state. As stated by Salac & Kim (2016), among the countries in Asia, Philippines is one which has an insufficient internet speed averaging to 2.8 Mbps. This is because of the lack of active competition in the market for internet connectivity resulting to a slow and costly internet connection.

On the perceived benefits of telemedicine, the respondents agree on the four parameters like affordability, safety, comfort, and ideal for follow-up consultation. Affordability is really a reality in telemedicine because doctors professional fee is cheaper when online consultation was done, and patient have less expenses because they don't spent money for transportation. Safety and comfort are the best benefits that telemedicine could offer especially in time of pandemic because patients need not to get out of their home, and they can choose the best comfortable time for their online consultation. It is also most ideal for follow-up consultation because at that time, the doctors only need to check the progress of the treatment which can be done online. The respondents disagree on one benefit which is telemedicine offers family interaction. With the current status of internet connectivity, family interaction may not be done well. In addition, there is limited online platform that can be used for this family interaction. These are the possible reason why the respondents perceived it that way.

The private patients perceived that telemedicine is disadvantageous because it is not ideal for critical cases/ illness; it offers not the same quality of service; and internet connection is not stable. On the actual setting, critical cases/ illness requires a thorough examination of doctor which cannot be done well using an online platform. Face-to-face recognition and physical examination is a must for such condition and it could not be materialized online. Poor internet connectivity is a given issue in the Philippines especially in the province like Quezon where this study was conducted. It is expected that some areas have unstable connections and others don't have connections at all. Comparing the quality of service delivered between an actual encounter and online, it is anticipated that online consultation could not offer the same quality of service. Therefore, it is also a big factor that the quality of service be given more attention in planning for telemedicine. It's not only a matter of reaching the patients but also a question of what type and quality of service we can offer.

As explained by Menon et al. (2016), there are burdens in the implementation of telemedicine but there are also advocates of the good impact of telemedicine that is expected to increase patient's satisfaction, more advance and a better-quality of communication, and the benefits to the family which will received education & awareness thereby increasing their knowledge. In conclusion, the private patients in Quezon province perceived that at this time of COVID-19 pandemic, we are prepared for telemedicine. However, there are certain parameters that needs to be improved for a more steadfast online consultation especially the internet connectivity. The benefits of telemedicine are affordability, comfort, safety, and ideal for follow-up consultation while its disadvantages are it is not ideal for critical cases/ illness; it offers not the same quality of service; and internet connection is not stable. It is recommended that the factors to be given primacies in telemedicine are internet connectivity and the quality of service.

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