

Telehealth Nursing During the Pandemic

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Abstract – *The utilization of telehealth services in delivering healthcare to patients continues to expand in this time of pandemic as an emergency response. Nurses are the key instruments in providing optimum care. Hence, the evolving roles of nurses in the provision of telehealth need to be explored. This study aimed to explore telehealth nursing in this pandemic, its limitations, the nurses' adaptation to telehealth and to develop guidelines for its adaptation in the Philippine context. A qualitative single case study research design was utilized to have an in-depth understanding of the aforementioned topic. Virtual interviews with self-made interview questions were conducted involving 5 participants from Advanced Psychiatric Solutions in Illinois, Chicago, which provide telehealth services. The 5 participants, including two (2) nurse practitioners and three (3) staff nurses, were chosen through non-probability purposive sampling. The emerging themes revealed in this study in the changes in telehealth during a pandemic are the increased utilization, enhanced patient safety, and improved accessibility to consultation. Poor internet connectivity and limited nursing assessment are discovered as limitations in using telehealth consultation. Exemplary preparations and innovative approaches are observed as nurses continue to adapt the utilization of telehealth. As the move to telehealth continues to emerge, researchers created and presented proposed basic guidelines that may assist future telehealth nurses as well as healthcare institutions in the Philippines with the skills required and the necessary preparations to adapt to these changes.*

Keywords – *COVID-19, nursing roles, online consultation, pandemic, telehealth nursing*

INTRODUCTION

Before technological advancement, clients tend to make appointments for consultation and go to hospitals to see their physician. However, the number of clients seeking care online continues to increase. The development of telehealth has become a significant key part in the medical care framework as it gives care to patients in the midst of distance. Technology allows providers to extend their services in remote areas. Telehealth services have expanded the possibility to secure optimum patient care that is timely, safe, and effective. These outcomes cannot be refined without the provision of medical care experts, especially nurses.

One of the leading instruments in giving and conveying care to patients by distance is the nurses. The nursing labor force keeps on extending with the expanded use of telehealth services and other technology in healthcare. Health Technology development allows telehealth nursing to have a wide scope of obligations to make it crucial for the nursing profession to expand to its fullest degree in delivering nursing care to patients. It demonstrates the importance of nursing roles in adopting telehealth services in the field of medical systems.

However, the start of COVID-19 pandemic has incredibly influenced the provision of health care to patients. Telehealth turned out to be more normal as it serves as a crisis response and has been routinely used in the health system nowadays. In view of statistics, 76 percent of hospitals in the United States provide telehealth services to connect with patients at a distance [1]. In the Philippines, telehealth business grew 450% last April 2020 due to its public demand as more Filipinos choose online consultations [2]. There has been an expanded record of telehealth visits wherein health care tends to provide remote monitoring to alleviate hazard openness to the coronavirus. This now requires the involvement of nurses in the provision of telehealth services to patients remotely. All things considered; it is ideal to have exploration in this study. This is to find out the roles and responsibilities of telehealth nurses in their approach to the COVID-19 pandemic.

This study will establish an understanding of how telehealth nursing has changed since the start of the pandemic. Through this research, nurses will benefit from this study by clearly identifying the limitations and implications of telehealth nursing. They will likewise figure out how to improve and better adapt

telehealth services by giving them the best clinical practices. Secondly, this study can also benefit the patients by giving them knowledge of how telehealth functions and what they would expect, how they can use this as their advantage to prevent risk when traveling, and then time and money in these times of pandemic. Furthermore, this study is significant to the Clinical Instructors because they can use this as their learning assets when discussing the guidelines in adapting telehealth nursing here in the Philippines. This will also give them ideas on areas where they can improve in executing if they opt to adopt telehealth. Lastly, future researchers will also benefit from this study because this will fill in as a guide in conducting an enhanced study or to test the validity of other similar results.

OBJECTIVES OF THE STUDY

This qualitative single case study intends to explore telehealth nursing in this pandemic and to develop guidelines for its adaptation in the Philippine context. Specifically, it seeks to determine how telehealth nursing has changed during the pandemic, to identify limitations of telehealth nursing, to know how nurses adapt to telehealth nursing during the pandemic, and to develop basic guidelines in adopting telehealth nursing in the Philippines.

MATERIALS AND METHODS

Research Design

The research design used in this research was a qualitative single case study. A single case study involves an in-depth investigation of a single person or single group or single institution or organization. The goal is to provide an accurate and complete description of the case [3]. It investigates a contemporary phenomenon in an in-depth manner and within its real-world context when the boundaries between phenomenon and context may not be clear [4]. Furthermore, single case studies can use one participant, or a small group of individuals, and should be remained relatively small for at least 5 participants [5].

The researchers deemed case study to be the most suitable method in exploring telehealth nursing during a pandemic to have an in-depth investigation of a contemporary phenomenon, which is telehealth nursing during the pandemic. Moreover, the participants were interviewed within its real-world context as the institution they belong to provides telehealth nursing.

Participants

This research used a purposive sampling method in choosing the research participants to focus on particular characteristics of a population that are of interest, which will provide the best answers to the research questions. The participants involved five (5) licensed nurses with an age range from 25-50 years old. They are working at Advanced Psychiatric Solutions in Oakbrook, Chicago, Illinois, United States, which provides Telehealth services in expanding and improving their health care delivery system. The participants in this study fit in this research because they have enough knowledge in providing reliable data.

Research Instruments

The research instrument for this study used open-ended interview questions. The questions included seeking to explore telehealth nursing in this pandemic and to develop guidelines for its adaptation in the Philippines. The basis of the set of items constructed is the objectives of the study. This instrument is composed of five (5) items: Questions 1 is about the changes of telehealth nursing during pandemic, Question 2 aims to determine the limitations of telehealth, Questions 3-4 seek to determine nurses' adaptation to telehealth, lastly, Question 5 aims to identify best practices suggested to develop telehealth guidelines in the Philippine context. The responses provided in each question were not limited to a set of options, allowing the participants to answer based on their feelings and experiences.

Validation of Research Instruments

In completing this research, the researchers have provided a proposed interview questions to supplement their propositions and gather data from actual persons who took part in this advancement. The researchers consulted their research adviser to check its validity. The comments and suggestions were applied after the consultation. After the revision, the reliability of the paper was also determined. After performing the initial steps in data gathering, a virtual interview was conducted with its target participants.

Data Gathering Procedure

First, the researchers prepared the objectives of the study. The researchers constructed interview questions aligned with the research objectives. Upon approval of the questions from the experts, the researchers asked permission from the College Dean about the data gathering procedure conducted in Chicago, Illinois,

US. After that, the researchers sent the letter to the authority to Advanced Psychiatric Solutions to ask for permission. After asking for consent, the researchers distributed the letter to the participants with the interview questions attached. The time used during virtual interviews via the Zoom app was done during their off-duty time, which only lasted for approximately 30-45 minutes. During the virtual interview, the participants answered the questions based on their experience. The interviews were recorded with the participants' consent and were transcribed into verbatim scripts to be analyzed.

Data Analysis

The researchers analyzed the necessary data that have been collected from the interview. Initially, the responses by the participants were transcribed and reviewed, ensuring their consistency to the actual statements. Transcriptions were systematically arranged, while important phrases were emphasized. After the significant patterns have been identified, the researchers categorized the data and coded them thoroughly. The codes were tabulated for easy comprehension. Lastly, the researchers interpreted overlapping themes that are applicable and beneficial throughout the study.

Ethical Considerations

The informed consent given to the participants was detailed containing the purpose and the nature of the study without any deception, coercion, and concealment obtained from the participants before conducting the study. Strict confidentiality was guaranteed, and voluntary participation was acknowledged allowing participants to refuse or withdraw from participation. Although the target participants do not involve vulnerable participants, the researchers ensure that the protection will be observed should there be any vulnerable individuals present among the participants. At the beginning of the interview, researchers asked the permission of the participants for the whole interview to be audio-video recorded. Since this research is an academic requirement and not funded by any agency nor for pharmaceutical use, the researchers only extended their gratitude to their participants. The researchers also ensured the strictest protection of information and privacy of the participants. Thus, their names were not mentioned throughout the study.

RESULTS AND DISCUSSION

The changes in telehealth during the pandemic.

This section depicts the changes brought about by the pandemic to the implementation of telehealth nursing in APS and how it affects the participants and clients in terms of their safety and accessibility to telehealth.

Increased utilization of telehealth consultation.

Three out of five participants mentioned that there is an increased utilization of telehealth consultation. This is evident during the conduct of telehealth services as perceived by the participants.

More than half of the participants reported an increased number of patients seeking telehealth. THN2, THN4, and THN5 compared that more patients became more engaged in telehealth during the COVID-19 pandemic as compared to when there is still no pandemic.

The increased number of patients utilizing telehealth has become evident during the pandemic. This is strengthened by the study of wherein findings reveal that there is an increased demand for telehealth services in countries affected by the COVID-19 pandemic proving that there is a need to scale up telehealth capabilities, during and beyond the pandemic.

Enhanced patient safety against COVID-19.

Overall, one of the changes in telehealth nursing during the pandemic that were perceived by most of the participants is the enhanced safety of patients. This is evident during the conduct of telehealth services as observed by the participants in terms of providing safety to patients.

All five participants from APS identified that safety of patients is observed when conducting telehealth as it prevents patients from acquiring new illnesses by keeping them inside their homes. THN2 and THN3 emphasized that keeping clients inside their homes contributed to reducing the number of COVID cases in their location. This was strengthened when all participants reported fewer cases since the implementation of telehealth programs in APS.

The manner on how the participants described the effect of telehealth nursing during the pandemic is confirmed by the study conducted by Kemp et al., (2020) [6], wherein findings reveal that increasing use of telehealth can be lifesaving despite the evolving COVID-19 pandemic. This is because it still allows effective nursing care to patients amidst the distance while reducing the risk of exposure and transmission from one person to another.

Improved accessibility to consultation. Nearly all mentioned that accessibility on screen assessment is one of the major positive changes in telehealth nursing. This part covers the access of patients when receiving virtual care via telehealth services.

Three out of five participants have mentioned the same response in terms of accessibility. THN1, THN2, and THN4 mentioned the process of providing on-screen assessment to patients. THN1 highlighted the process of filling out forms of the patients when doing assessment while THN4 focused more on how mental status examination is conducted.

According to Burmeister et al. [7], findings reveal that telehealth consultation contributes to the betterment of a patient's condition. A nurse clinician noticed continuous progress of most participants with psychological disorders seeking telehealth consultation. At the start, some of the patients are not comfortable sharing their conditions by utilizing telehealth but as time passes the anxiety of patients are decreasing and started to improve accessibility to consultation.

In terms of the changes in telehealth nursing during the pandemic, the following themes emerged: a) Increased utilization to consultation, b) Enhanced patient safety against COVID-19, and c) Improved accessibility to consultation

The limitations of telehealth nursing. This section delineates the deficiencies as described by the participants of APS based on their experience in terms of the connectivity with patients and how nurses perform comprehensive assessment.

Poor internet connectivity. Generally, all participants consider technology and internet access as external difficulties encountered in telehealth. This is evident during the virtual interview conducted with the participants.

All participants mentioned that internet connection and accessibility to technology are perceived barriers proving that these technology-based difficulties are commonly encountered when providing telehealth services to patients.

Several authors lend support to the above phenomenon. According to Sagaro [8], internet connection and technical support system rank 3rd as the most common organizational barriers proving that reported barriers should be given. According to Zhai [9], not all internet connection is stable and can be used in providing telehealth services through audio-video conferences because the bandwidth often varies

depending on internet plans used and geographical locations.

Limited nursing assessment. Most of the participants mentioned that by utilizing telehealth it lacks physical examination. It is one of those things considered why some individuals see telehealth as ineffective technological advances in health care. This part presents the process of assessing patients through virtual means.

THN 1, THN2, THN3, and THN4 have seen telehealth to have a lack of physical examination wherein it is further explained by THN1 that the camera limits the visualization of patient's condition and on-screen assessment prevents nurses from monitoring a patient's vital signs in person.

According to Goenka et al. [10], as apparent in the cases, purports that telehealth visits are shorter in duration as compared to in-person visits due to lack of a thorough physical examination. As a solution, patients for initial telehealth consultation required an in-person visit to have patient education and an actual physical examination before telehealth simulation. This highlighted that the process of telehealth lacks the use of an intensive physical examination of patients. On the other hand, THN5's response conforms with the study of Westby [11] wherein findings revealed that since reimbursement issues are considered as barriers, reimbursements for telehealth visits should be the same rate as in-person visits to ensure the equity of care.

In terms of the limitations involved in conducting telehealth, the following themes emerged: a) Poor Internet connectivity and, b) Limited nursing assessment.

The nurses' adaptation to telehealth during the pandemic. This section describes the factors that telehealth nurses needed to consider in order to continue to provide healthcare services amid the pandemic, including personal and technical barriers and how they have dealt with them.

Exemplary preparations. Almost all the participants mentioned that during preparation in utilizing telehealth by means that checking a patient's record happens prior to consultation also. It helps both nurse and patient by easily accessing information with utmost security and confidentiality guarded. This part covers the initial steps when starting for a telehealth consultation.

THN2, THN3, and THN4 mentioned that checking of patient records is done prior to virtual consultation. This is done when the patient is for follow-up consultation. According to THN2, monitoring for vital

signs, laboratory results, and the patient's last three office visits are the notes checked to have a short review about the patient's condition. It was further explained by THN3 that it is time efficient for both nurse and patient when a patient's chart is viewed. After checking, assessing the patient is continued during the consultation. On the other hand, THN5 explained that patient confidentiality and data privacy is practiced in preparation for the consultation to protect patient safety.

According to Bendzelova [12], healthcare providers including nurses use different devices when monitoring their patients. They use mobile phones, and remote monitoring devices to have an improved access to mental status of patients. Checking a patient's record prior to consultation enables nurses to provide an effective and smooth delivery of healthcare to patients which is aligned with their needs.

Innovative approach to telehealth. Most of the participants tell the importance of telehealth on how it makes nursing more efficient in terms of services provided in the clinical setting. This part portrays the best practices suggested by the participants to provide an effective telehealth visit.

THN2, THN3, THN4, and THN5 suggested best practices in terms of nursing competence such as having improved history taking skills, providing detailed instructions to patients, having collaboration with other staff in the clinic, and having a proper training program in telehealth for nurses. THN1 explained that technological barriers should be considered when implementing telehealth.

With the suggestions provided for telehealth to achieve its full potential, it was supported by the study of Rubin et al. [13]. He purports that telehealth must be time efficient and client centered. Risk assessment, cognitive capacity, and evaluation of medical compliance are just some of the factors to consider having an improved history taking skills. Interprofessional collaboration was also proposed to be part of a training program in telehealth since telehealth serves as an instrument in exchanging patient information without compromising data patient privacy. In terms of the nurses' adaptation to telehealth nursing, the following themes emerged: a) Exemplary preparations and b) Innovative approach to telehealth.

CONCLUSION AND RECOMMENDATION

The following conclusions were drawn from the analysis and synthesis of the findings of this study: Telehealth has been greatly utilized as a means of consultation, particularly during the pandemic. It has

become an efficient system in bridging the distance between patients and telehealth nurses without the need for actual physical interaction. In this way, patients' safety from acquiring the COVID-19 is enhanced and accessibility to consultations is improved. Some factors limit the full potential of the implementation of telehealth nursing, including poor internet connectivity and limited nursing assessment. These must be addressed by considering the patients' access to a reliable internet connection and providing thorough nursing assessments amidst distance, which can help enhance the capabilities of nurses in delivering appropriate care. Nurses play a key role in the establishment of proper telehealth implementation, needing supplemental preparations to be able to deliver services and care to patients online. Telehealth nurses apply innovative approaches to address the personal and technological problems of telehealth and provide solutions suited for the current and even after the pandemic. Basic guidelines for nurses in the adoption of telehealth are needed which will be beneficial for healthcare institutions in the Philippines as well as patients who seek to utilize telehealth services as it continues to emerge.

It was recommended that present information dissemination as to what is telehealth to raise awareness to the public especially in these times of pandemic wherein going physically to the hospital for consultation pose many challenges. Provide an awareness dissemination campaign by providing infographics that serve as guidelines in the adoption of telehealth nursing in the Philippines. Reach out to both healthcare professionals and patients to educate themselves in the utilization of telehealth services. Conduct proper training for the telehealth nurses with the step-by-step process of telehealth consultation. Encourage future researchers to conduct similar studies to have a deeper, broader understanding about engaging in telehealth communications for them to share their knowledge and easily influence other healthcare providers by utilizing the results to develop topics for further studies or investigations to provide more basis towards future studies.

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