

**Student Satisfaction and Utilization of Teleconsultation
in a Private University in Iloilo City**

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Abstract

With the increasing prevalence of teleconsultation in higher education, understanding students' perception and usage patterns is important for improving service delivery.

The objectives of this study are to determine the level of satisfaction and utilization of teleconsultation and to determine the relationship between satisfaction and utilization of teleconsultation in a private university in Iloilo City, Philippines.

The study used stratified random sampling, and it examined factors that contribute to student's satisfaction with teleconsultation services such as functionality, comprehensibility, promptness, attentiveness, competency, and amiability of healthcare professionals. The study also explored the extent to which students utilize teleconsultation services such as usefulness, ease of use and learnability, interface quality, interaction quality, reliability, satisfaction and future use. Selected respondents were given questionnaires to gather quantitative data on their satisfaction and the extent to which they utilize teleconsultation services.

The findings revealed a strong level of satisfaction among students in a private university in Iloilo City on their willingness to utilize telehealth services again in the future. The p-value of 0.000 indicates a strong level of significance, suggesting that the relationship is unlikely to be due to chance.

The Spearman's rho coefficient of 0.754 indicates a strong positive correlation between satisfaction and utilization, implying that as satisfaction with teleconsultation increases, so does the utilization of this service among students in the university.

In conclusion, this study emphasizes the importance of teleconsultation as a

valuable resource in the academic setting and highlights the need for continuous evaluation and enhancement to ensure optimal student satisfaction.

Keywords: Teleconsultation, Student Satisfaction, Utilization, Private University

Chapter 1

Introduction

Background and Rationale of the Study

The use of teleconsultation has become increasingly popular in recent years due to its convenience and accessibility, particularly in the field of healthcare. Several studies have highlighted the benefits of teleconsultation in healthcare settings, including increased patient satisfaction and reduced healthcare costs (Bashshur et al., 2016; Palen et al., 2018). Moreover, it was noted that the use of teleconsultation has become an effective means in improving access to services in healthcare, particularly for individuals living in rural areas (Gagnon et al., 2016).

The COVID-19 pandemic has disrupted traditional healthcare delivery, including the delivery of healthcare services in schools. At the height of the pandemic, when people were confined to their homes due to social distancing and other protocols, teleconsultation was proposed as a means of providing healthcare services in schools while minimizing the risk of transmission of the virus. The utilization of teleconsultation in school clinics has several potential benefits during the pandemic. Teleconsultation can help to maintain continuity of care for students who require ongoing medical management or follow-up care. Teleconsultation can also provide a means of triaging and assessing students who present with acute medical conditions, allowing for timely and appropriate medical interventions (American Academy of Pediatrics, 2020).

Student satisfaction with teleconsultation services is important for ensuring that students continue to access necessary healthcare services during and even after the pandemic. Several studies have examined student satisfaction with teleconsultation in school clinics during the COVID-19 pandemic. A study by Adapa et al. (2021) found that the majority of students who received teleconsultation services were satisfied with the care they received and reported that teleconsultation was a convenient and accessible means of receiving healthcare services. Moreover, a study by Girdhar et al. (2021) found that students who received teleconsultation services during the pandemic reported high levels of satisfaction with the quality of care they received, and perceived teleconsultation as a safe means of receiving healthcare services.

The use of teleconsultation in school clinics has also been shown to improve access to healthcare services for students who may have previously experienced barriers to accessing care, such as those living in rural or underserved areas (Adapa et al., 2021). Studies suggest that teleconsultation is a viable means of delivering healthcare services to students during the COVID-19 pandemic, and that students are generally satisfied with the care they receive through teleconsultation.

One potential gap that was found is that while teleconsultation services were generally effective in meeting the healthcare needs of students, there were concerns regarding the quality of care provided, particularly with regard to the level of personal connection between students and healthcare providers.

Additionally, the availability and accessibility of teleconsultation services may be a gap in some private universities. A study by Petersen et al. (2020) found that while teleconsultation services were available in some schools, they were not universally accessible to all students. This suggests a need for greater equity in the provision of teleconsultation services in private universities.

Although many studies have investigated teleconsultation and its effects, its impact on student satisfaction and utilization in the context of a private university setting remains largely unexplored. Hence, this study was conducted.

Objectives of the Study

This study sought to determine the student satisfaction and utilization of teleconsultation in a private university in Iloilo City.

Specifically, this study aimed to:

1. describe students' profile as to age, sex, department, and year level;
2. determine students' level of satisfaction of teleconsultation;
3. determine students' level of utilization of teleconsultation; and
4. determine whether there is a significant relationship between students' satisfaction and utilization of teleconsultation.

Hypothesis of the Study

The following hypothesis was tested:

There is no significant relationship between students' satisfaction and utilization of teleconsultation in a private university in Iloilo City.

Theoretical and Conceptual Framework

This correlational study was anchored in the Technology Acceptance Model (TAM) and Patient-Centered Care (PCC).

A theoretical paradigm called the TAM (Davies, 1989) explains how people accept and use technology. The paradigm contends that the two main factors influencing technology acceptance and utilization are perceived utility and perceived ease of use. Perceived usefulness measures how much a person thinks a technology will improve their performance or make their lives easier, whereas perceived usability measures how much a person thinks utilizing a technology will be simple and straightforward.

Several studies have used the TAM to investigate technology adoption and use in healthcare contexts, including telemedicine and teleconsultation. For example, a study by Almathami and colleagues (2020) used the TAM to investigate factors that influence healthcare professionals' acceptance and use of telemedicine. They found that perceived usefulness, perceived ease of use, and subjective norm (the perceived social pressure to use the technology) were significant predictors of telemedicine acceptance and use.

Similarly, a study by Zhang and colleagues (2020) used the TAM to investigate factors that influence patient satisfaction with teleconsultation. They found that perceived usefulness, perceived ease of use, and perceived quality of care were significant predictors of patient satisfaction with teleconsultation.

Therefore, the TAM could be a relevant theoretical framework for studying student satisfaction and utilization of teleconsultation, as it provides a comprehensive model for understanding the factors that influence technology adoption and use.

The Patient-Centered Care (PCC) Theory also supports this study. This forms the central concept in the diagram. It represents the core principles and values of patient centered care, such as understanding patient needs, effective communication, empowerment, involvement, and continuity of care.

In this study, it is assumed that student satisfaction and utilization of teleconsultation can be based on several key constructs. One construct is student satisfaction, which refers to the degree to which students are satisfied with the teleconsultation process and the outcomes of the consultation. Student satisfaction can be measured through surveys or interviews that ask students about their experiences with teleconsultation. Another key construct is utilization, which refers to the extent to which students use teleconsultation to address their academic and psychological issues. Utilization can be measured through usage data, such as the number of teleconsultation sessions attended by students.

Furthermore, student satisfaction as another essential element under study is represented by the level of satisfaction experienced by students in relation to the teleconsultation services. It can include factors such as convenience, accessibility, responsiveness, perceived quality of care, and overall experience. Likewise, student

satisfaction is influenced by the application of patient-centered care principles in the design and delivery of teleconsultation services.

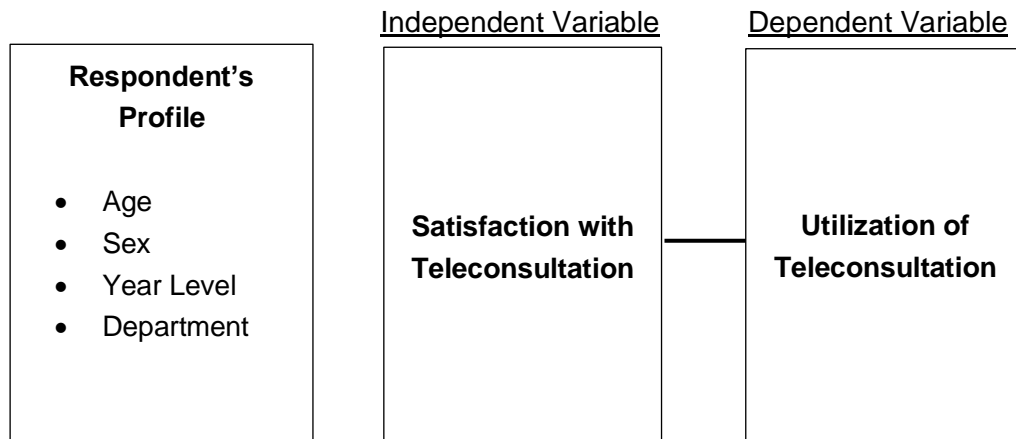
Utilization of teleconsultation represents the extent to which students utilize teleconsultation services. It can be measured by the frequency of teleconsultation usage, the number of students engaging in teleconsultations, and the reasons behind their utilization patterns. Utilization is influenced by factors such as student satisfaction, awareness of teleconsultation availability, ease of use, and perceived value and benefits of teleconsultation compared to other healthcare options. Arrows or lines can be drawn between these elements to represent the relationships and interactions.

The Patient-centered Care Theory signifies that the application of patient-centered care principles positively influences student satisfaction with teleconsultation services. Further, it signifies that the higher student satisfaction, there is an increase in the likelihood of students utilizing teleconsultation services.

Figure 1 shows the conceptual paradigm of the study. The independent variable is the student satisfaction that serves as the moderator and is directed towards the dependent variable, which is the utilization of teleconsultation services. In this paradigm of the study, the independent variable is hypothesized to have a singular influence on the dependent variable.

Figure 1

Schematic Diagram showing the Assumed Relationship of Variables



Definition of Terms

Satisfaction. This refers to a pleasant feeling that a person gets when he receives something he wants or when he has done something that he really wants to do (Cambridge English Dictionary).

In this study, it referred to students' evaluation of the quality of care they received, and whether their needs and expectations were adequately addressed by the healthcare provider. It was measured using a self-made questionnaire and categorized as Low (below 20), Moderate (20 to 30), High (30 to 35).

Intent to Utilize. The act of using something in an effective way (Cambridge English Dictionary).

In this study it refers to student's use of teleconsultation for their healthcare needs. A 7-point Likert scale was used to rate the questions.

Teleconsultation. Refers to a broad phrase for any online or video consultation between physicians or between physicians and patients (Medical dictionary). Operationally, teleconsultation is a real-time interaction between the nurse, doctor and patient using video conferencing. Exchange of medical information by the patient and assessment of the patient's condition takes place. In this study, teleconsultation can be described in terms of its availability, accessibility, satisfaction, and utilization among students.

Significance of the Study

The results of the study would be beneficial for the following:

Students. This study can benefit students from improved access to healthcare services, increased convenience, and personalized support through teleconsultation.

Students can use the study results to gain insights into their peers' experiences, satisfaction levels, and preferences with teleconsultation. This information can help them make informed decisions about utilizing teleconsultation services and understanding its benefits.

Administrators. The study can help university administration understand the benefits of teleconsultation services and the potential barriers to their implementation, providing them with the information they need to make informed decisions about implementing teleconsultation services in the university. The study results can guide university administrators in developing and refining teleconsultation strategies, policies, and service delivery models. The findings can inform decision -

making processes, resource allocation, and the development of guidelines to ensure effective implementation and utilization of teleconsultation services.

Faculty and Staff. Faculty members and staff involved in student support services can benefit from improved communication and coordination with students, enhanced student well-being, and healthcare delivery. The study results can help faculty and staff understand student satisfaction levels, utilization patterns, and preferences regarding teleconsultation. This information can guide them in tailoring their support services, providing appropriate referrals to teleconsultation, and adapting their approaches to meet student needs effectively.

School Clinic Personnel. The study can provide school clinic personnel with insights into the needs and preferences of students when it comes to teleconsultation services, allowing them to tailor their services to better meet the needs of their patients. Further, the study may provide valuable information on the effectiveness of teleconsultation services and identify any barriers to its utilization.

Public Health Officials. The study can provide public health officials with insights into the potential benefits of teleconsultation services for improving access to healthcare services and improving health outcomes among students, helping to inform policies and strategies to promote the implementation of teleconsultation services in school.

Future Researchers. The study can provide future researchers in the field of telehealth with valuable insights into the factors that influence the adoption and use of this technology in educational contexts.

Scope and Limitation of the Study

This descriptive correlational study aimed to determine the relationship between student satisfaction and utilization of teleconsultation in a private university in Iloilo City for academic year Aug 2022 – April 2023. Stratified random sampling was used. The study examined factors that contribute to student's satisfaction with teleconsultation services, such as functionality, comprehensibility, promptness, attentiveness, competency, and amiability of healthcare professionals. The study also explored the extent to which students utilize teleconsultation services such as usefulness, ease of use and learnability, interface quality, interaction quality, reliability, satisfaction, and future use.

The respondents were chosen based on the following inclusion criterion: students who have utilized teleconsultation services at least once during the academic year Aug. 2022 – April 2023. Meanwhile, students who have not utilized teleconsultation services or those who are unable to provide informed consent were excluded from becoming respondents of the study.

The study was limited by the size of the sample, which was not representative of the entire student population. The study has limited generalizability due to a small or non-representative sample of students who participated in teleconsultation. Thus, the study was not able to capture all the potential benefits and limitations of teleconsultation services, as it focuses only on student satisfaction and utilization

Chapter 2

Review of Related Literature

This chapter is divided into two (2) major sections. The first section includes the review of related concepts, and the next part focuses on the review of related studies.

Review of Related Concepts

COVID-19 Pandemic and Teleconsultation

The COVID-19 epidemic was classified as a pandemic by the World Health Organization on March 11, 2020. To lower the danger of transmission, telemedicine, in particular video consultation, was then pushed and scaled up as a means of patient-doctor consultations given the fact that mobility restrictions were imposed as part of healthcare protocols to curb virus transmission. A few months later, Los Angeles was named the American county with the most COVID-19 cases. In response to the COVID-19 outbreak, our academic health center quickly deployed and utilized telemedicine, allowing for continuous patient treatment. As of March 16, 2020, all clinic appointments moved to telemedicine, which is defined here as synchronous video or telephone visits.

According to the World Health Organization (WHO), as of May 4, 2023, there have been over 400 million confirmed cases of COVID-19 and over six million deaths worldwide (WHO, 2023). The pandemic has affected all aspects of society, including healthcare, education, and the global economy. Lockdowns, travel restrictions, and

vaccine programs are just a few of the steps that governments around the world have put in place to stop the virus's spread.

The COVID-19 pandemic caused the health care system to face numerous difficulties. Numerous modifications to practice models were required to continue providing patients with and without COVID-19 with safe and efficient care. As a result, telehealth models were quickly adopted in many settings, including inpatient and outpatient ones. Patients and providers needed to immediately adjust to telehealth models to prevent and limit the transmission of COVID-19 (Gajarawala and Pelkowski 2020).

E-Health is the effective use of information and communications technology (ICT) to support activities connected to health, according to the World Health Organization (2021). This supports telehealth generally. The Health Resources and Services Administration (HRSA) further stated that Telehealth is an inclusive healthcare service that uses electronic information and telecommunications such as the internet, videophone, asynchronous imaging, media streaming, and wireless systems to facilitate long-distance clinical care, medical education, and health administration. This statement was cited in Health IT by Solari-Twadell et al (2021).

Hospital beds and medical supplies are in short supply because of the coronavirus pandemic. The public is now more aware of how telemedicine can play a significant role in the future of healthcare. Many practices have already adopted telemedicine, where patients can communicate with medical specialists via video

conferencing rather than waiting in crowded waiting rooms and receiving COVID-19-related health advice.

Telemedicine enables patients to remain at home while preventing the spread of the virus. As a result, medical personnel can concentrate more on patients who require in-person care. When possible, patients who need care for conditions other than the coronavirus use telemedicine services (Ajay Prasad 2020).

The COVID-19 pandemic yielded a significant impact on global health, the economy, and society. One key concept related to the COVID-19 pandemic is transmission dynamics which refers to the processes by which the virus spreads from person to person and how these processes can be interrupted (Kucharski et al., 2020). Understanding the transmission dynamics of the virus is critical for developing effective public health interventions, such as social distancing and vaccination programs.

Another related concept is the burden of disease. The burden of disease refers to the impact of a particular illness on a population, including measures such as mortality, morbidity, and disability (Murray et al., 2012). The COVID-19 pandemic had a significant burden of disease, with millions of confirmed cases and hundreds of thousands of deaths worldwide.

A third related concept is pandemic preparedness. Pandemic preparedness refers to the readiness of healthcare systems, governments, and societies to respond to pandemics (Petersen et al., 2020). The COVID-19 pandemic has highlighted the importance of pandemic preparedness, including the need for robust

surveillance systems, rapid testing and diagnosis, and effective public health communication.

Finally, a fourth related concept is the social determinants of health. The social determinants of health refer to the social, economic, and environmental factors that influence health outcomes and disparities (Marmot et al., 2008). The COVID-19 pandemic has had a disproportionate impact on certain populations, such as those with underlying health conditions, essential workers, and marginalized communities, highlighting the importance of addressing social determinants of health in pandemic response efforts.

Truly, the COVID-19 pandemic has raised important concepts related to transmission dynamics, burden of disease, pandemic preparedness, and social determinants of health. By understanding these concepts, policymakers and public health officials can develop more effective strategies for preventing and mitigating future pandemics.

Teleconsultation is an emerging form of healthcare delivery that utilizes information and communication technologies to provide medical care remotely. With the increasing availability and utilization of teleconsultation in healthcare, its application in university clinics has become a topic of interest for researchers.

One of the key concepts related to the study of student satisfaction and utilization of teleconsultation in the university clinic is patient-centered care. Patient-centered care is an approach to healthcare that emphasizes the importance of the patient's experience and perspective in decision-making and care delivery (Epstein

and Street, 2011). Studies have shown that teleconsultation can improve patient-centered care by increasing patient access to care, reducing wait times, and providing greater convenience (Hollander et al., 2014; Kairy et al., 2014). Another related concept is user acceptance of technology. User acceptance of technology refers to the degree to which individuals believe that using a particular technology will improve their job performance or overall well-being (Venkatesh and Davis, 2000).

Studies have shown that user acceptance of teleconsultation is associated with a variety of factors, including ease of use, perceived usefulness, and social influence (Kukafka et al., 2003; Lin and Wang, 2005). Finally, a third related concept is satisfaction with healthcare services. Satisfaction with healthcare services is an important indicator of the quality of care and has been linked to patient outcomes, such as adherence to treatment regimens and improved health status (Cleary and McNeil, 1988). Studies have shown that teleconsultation can be a satisfactory mode of healthcare delivery, with patients reporting high levels of satisfaction with the convenience, accessibility, and quality of care provided (Bashshur et al., 2016; Hollander et al., 2014).

Thus, the study of student satisfaction and utilization of teleconsultation in the university clinic is a complex topic that encompasses a range of related concepts, including patient-centered care, user acceptance of technology, and satisfaction with healthcare services. By understanding these concepts, researchers can better design and implement teleconsultation services that meet the needs of university clinic patients.

It has also been noted that teleconsultation, or the use of technology to provide remote medical consultations, has become increasingly popular in university clinics. There are several related concepts that are important to understand in the context of teleconsultation in university clinics. One related concept is telemedicine. Telemedicine is a broader term that encompasses all aspects of healthcare delivery that use technology, including teleconsultation. Telemedicine can include remote patient monitoring, remote diagnostics, and electronic health records (EHRs) (Kruse et al., 2017).

Another related concept is patient satisfaction. Patient satisfaction is a critical component of healthcare delivery, and it is essential to consider patient satisfaction when implementing teleconsultation services in university clinics. Studies have shown that patient satisfaction with teleconsultation is generally high, although there are some concerns about the quality of care provided (Levy et al., 2018). A third related concept is access to care. Teleconsultation can improve access to care for patients who may not be able to access traditional in-person healthcare services.

However, there have been concerns about the potential for teleconsultation to exacerbate existing healthcare disparities, particularly for vulnerable populations (Bashshur et al., 2016). A fourth related concept is privacy and security.

Teleconsultation involves the transmission of sensitive medical information, and it is essential to ensure that patient privacy and security are protected. This includes ensuring that the technology used for teleconsultation is secure and that appropriate measures are in place to protect patient data (Kierkegaard et al., 2018).

Teleconsultation has become an essential component of healthcare delivery in university clinics, and related concepts such as telemedicine, patient satisfaction, access to care, and privacy and security are critical to consider when implementing teleconsultation services.

Review of Related Studies

Teleconsultation

Teleconsultation, also known as telemedicine or virtual care, has become an increasingly popular way for patients to receive medical care remotely. With the advancement of technology, teleconsultation has become a viable option for healthcare providers to offer medical consultations, assessments, and treatment plans through video, phone, or other virtual platforms.

A study published in the *Journal of Telemedicine and Telecare* in 2021 found that teleconsultation was effective in managing chronic obstructive pulmonary disease (COPD) in elderly patients. The study compared teleconsultation with face-to-face consultations and found that teleconsultation was just as effective in managing COPD symptoms. A systematic review published in the *International Journal of Medical Informatics* in 2020 examined 31 studies on teleconsultation in primary care. The review found that teleconsultation was a feasible and effective way to deliver primary care, with high levels of patient satisfaction and reduced healthcare costs. Another study published in the *Journal of Medical Internet Research* in 2020 examined the use of teleconsultation for dermatology consultations. The study found that teleconsultation was a reliable and effective way

to diagnose and manage skin conditions, with high levels of patient satisfaction.

"Teleconsultation in School Mental Health: A Systematic Review" by Martin Knapp, Sarah Byford, and Tim Kendall (2020): This systematic review evaluated the effectiveness of teleconsultation in school mental health. The authors found that teleconsultation can be effective in improving access to mental health services for students, particularly those in rural or underserved areas.

Satisfaction with Teleconsultation

Teleconsultation is a form of healthcare delivery where patients and healthcare providers communicate with each other via electronic means such as video conferencing, telephone, or messaging apps. With the increasing use of telemedicine, it is important to evaluate patient satisfaction with this form of healthcare delivery.

Furthermore, studies have shown that patients are generally satisfied with teleconsultation. One study published in the Journal of Medical Internet Research found that patient satisfaction with telemedicine was high, with 88% of patients reporting satisfaction with their telemedicine experience. Another study published in the Journal of Telemedicine and Telecare found that patients who received care via teleconsultation were as satisfied with the care they received as those who received care in-person.

In addition, patients appreciate the convenience of teleconsultation, as it saves them time and travel costs, and allows them to receive care from the comfort of their own home. Patients also value the ability to have easy access to specialists,

even if they are located in a different city or state. According to a recent survey of 4,000 adult Americans, patients who receive both in-person care and other forms of communication from healthcare professionals are more likely to be happy. High levels of satisfaction are reported when in-person visits are paired with communication methods like video, phone, text, and email.

On the other hand, results from a different recent poll on patient satisfaction for in-office vs. telemedicine visits show variations in levels of satisfaction. Results indicate that during the COVID-19 outage, patient satisfaction for telehealth visits was higher than it was for office visits in the primary care and urgent care segments.

User satisfaction is currently regarded as the key indicator of an information system's success. Despite being challenging to define; user satisfaction is regarded as an evaluative construct. Hospitals and other health institutions around the world spend a lot of money on information system projects. When planning, developing, or adopting hospital information systems (HISs), elements impacting or relating to user satisfaction should be taken into consideration if success is to be achieved. The goal of the current study was to present a thorough analysis of the variables that affect users' happiness with information systems. For articles published between January 1990 and June 2016, researchers conducted a thorough search of the electronic databases in PubMed, Science Direct, and IEEE. To extract reported dimensions, factors, and their potential influence on user satisfaction with information systems from the studies, a search strategy was developed using a combination of the following keywords: "model," "user satisfaction," "information system," "measurement,"

instrument," and "tool." Information quality, system quality, and user experience are the seven general factors influencing user satisfaction with information systems. Otherwise, it would end up with unsatisfied users that will finally contribute to the system failure.

A study by Vaghefi et al. (2021) investigated the satisfaction of students with teleconsultation services during the COVID-19 pandemic. The study found that 85% of the students were satisfied with the teleconsultation services and preferred them to inperson consultations. The study also found that teleconsultation was more convenient and saved time for both the students and healthcare providers. Similarly, a study by Bhagat et al. (2021) examined the satisfaction of students with teleconsultation services for mental health care. The study found that students were satisfied with teleconsultation services and found them to be effective in managing mental health conditions. The study also found that teleconsultation services were more accessible, cost-effective, and reduced the stigma associated with seeking mental health care. A study by Alghamdi et al. (2020) investigated the satisfaction of medical students with teleconsultation services for primary healthcare. The study found that the majority of the medical students were satisfied with teleconsultation services and found them to be effective in managing common medical conditions.

The study also found that teleconsultation services improved access to healthcare services for medical students who lived in remote or rural areas. In conclusion, the literature suggests that students are generally satisfied with teleconsultation services and find them to be effective, convenient, and accessible.

Teleconsultation services have the potential to improve access to healthcare services for students, especially those who live in remote areas. A relevant study that applied the patient-centered model in the context of teleconsultation is by Almathami and colleagues (2020). The study investigated the factors that influence healthcare professionals' acceptance and use of telemedicine, with a focus on the patient-centered model as a theoretical framework. The authors found that the patient-centered model was a significant predictor of healthcare professionals' acceptance and use of telemedicine. Specifically, they found that healthcare professionals who perceived telemedicine as an effective way to involve patients in their own care and improve patient engagement were more likely to adopt and use the technology. This study also highlights the importance of the patient-centered model in promoting the adoption and use of teleconsultation, and it suggests that teleconsultation services that prioritize patient-centered care are more likely to be successful improving student satisfaction and utilization of teleconsultation.

Utilization of Teleconsultation

The greatest method to assess success in telemedicine is to look at utilization rates, which are the golden number. When it comes to telemedicine, it is crucial to display this number to your clientele. Customers don't want to supply and pay for a service they haven't used; it has been observed. But demonstrating a high utilization rate shows how valuable the service is. It demonstrates that the workers have access to a valuable benefit and that consultants were helpful in putting together a successful telemedicine program. Sadly, a lot of HR departments and consultants

are unaware of their usage rate and rarely even mention it in presentations. It is too frequently disregarded or overlooked. In all honesty, it's possible that the reason it's not discussed is because it's bad. However, the utilization rate is a crucial metric for cost savings and worker satisfaction. Everyone should remember that a company's health plan is designed to promote engaged, healthy, and cared-for employees despite the difficulties and costs associated with health care. It serves as a tool for talent recruiting and retention. The creation of a standout health benefit for the business can be aided by a high-performing and widely used telemedicine program, which will increase employee engagement (Telecare Utilization Rate: The Magic Number of Telemedicine Jul 01, 2017).

Furthermore, a study by Alwhaibi et al. (2020) examined the utilization of teleconsultation services among medical students during the COVID-19 pandemic. The study found that the majority of medical students utilized teleconsultation services and were satisfied with the quality of care received. The study also found that teleconsultation was perceived as a safe and effective means of receiving healthcare services. Similarly, a study by Bhagat et al. (2021) investigated the utilization of teleconsultation services for mental health care among students. The study found that students were more likely to utilize teleconsultation services than in-person services for mental health care. The study also found that teleconsultation services improved access to mental health care for students who faced barriers to accessing traditional in-person services. Another study by Alghamdi et al. (2020) examined the utilization of teleconsultation services among medical students for

primary healthcare. The study found that the majority of medical students utilized teleconsultation services and found them to be effective in managing common medical conditions. The study also found that teleconsultation services improved access to healthcare services for medical students who lived in remote or rural areas. In conclusion, the literature suggests that students are utilizing teleconsultation services for healthcare services and finding them to be effective and convenient. Teleconsultation services have the potential to improve access to healthcare services for students, especially those who face barriers to accessing traditional in-person services.

Synthesis of Related Studies

The studies reviewed suggest that students are generally satisfied with teleconsultation services for healthcare and find them to be effective, convenient, and accessible. The utilization of teleconsultation services by students has also been found to be high, with many students preferring teleconsultation to traditional in-person healthcare services. Students considered them as safe and effective means of receiving healthcare services. And that teleconsultation services improved access to healthcare services for students who faced barriers to accessing traditional in-person services, especially those who lived in remote or rural areas. Overall, the synthesis of the related studies suggests that teleconsultation has the potential to improve access to healthcare services for students and enhance their overall satisfaction with healthcare services. Teleconsultation services may also provide a convenient and cost-effective means of accessing mental health care services for

students who may face stigma or other barriers to accessing traditional in-person services. However, further research is needed to explore the long-term effects of teleconsultation services on student satisfaction and utilization of healthcare services.

Chapter 3

Methodology

Research Design

This study employed a descriptive correlational research design. It described the level of satisfaction and utilization of teleconsultation by the students from their institution.

It then correlated these two variables to determine whether or not a relationship exists between student's satisfaction and utilization of teleconsultation in a private university in Iloilo City.

A correlation examines the direction and extent of the relationship between variables, without the researcher manipulating or intervening in the connection. The association might be either positive or negative. Positive refers to a situation when both variables change in the same direction. In contrast, negative correlation refers to changes that occur in opposing directions (Bhandari, 2021).

Study Population and Sampling Technique

The study population for the study on student satisfaction and utilization of teleconsultation consisted of students who have utilized teleconsultation services in the university for the academic year Aug. 2022 – April 2023.

Students who have utilized teleconsultation were identified through the records from the University Medical Clinic. The respondents were chosen using stratified random sampling technique. Respondents were taken from all colleges in the university. The total number of students who utilized teleconsultation is 1957. To

determine the sample at 5% desired margin of error using the Yamane's formula $n = \frac{N}{1 + N(e)^2}$, where $n = 1957 / (1 + 1957(0.0025)^2) = 1957 / 1 + (4.8925) = 1957 / 5.8925$
 $n = 332$. The sample size of 332 was obtained after computation. The chosen respondents were contacted using the contact details they have provided in the survey form through text or email.

College	Population	Sample Size
BMLS	210	36
CCS	158	27
Education	33	5
Cares	6	1
Law	29	5
CAS	17	3
Nursing	865	147
Medicine	21	3
CBA	565	96
Engineering	39	7
Pharmacy	8	1
CHM	6	1
Theology	0	0
Total	1957	332

Research Setting

This study was conducted at a private university in Iloilo City. A questionnaire was given to respondents who have utilized teleconsultation through google form.

Research Instrumentation

The researcher used an adapted survey questionnaire in this study, subject to expert validation to ensure correctness and validity. The study included an

explanation of its aim, advantages, risks, research type, technique, and duration. It also required the respondent to sign an informed consent form before participating in the survey.

The research instrument consisted of three parts. The first part covered the demographics of the respondents such as their age, sex, year level, and department.

Part two was about the student satisfaction of teleconsultation. Using the adapted survey questionnaire from Medical Clinic of the Private University in Iloilo Patient Satisfaction Rating (May 2018). It was categorized through a Likert scale ranging from 1-5, where 1 indicates "Unsatisfied", 2, is "Fairly Satisfied", 3 is "Satisfied", 4 is "Very Satisfied", and 5 is "Extremely Satisfied".

The third part is about the respondent's utilization of teleconsultation using adapted Development of the Telehealth Usability Questionnaire (TUQ)" by Parmanto B. Lewis AN Jr. Graham KM, Bertolet MH (2016). The questionnaire was designed to measure the following: usefulness, ease of use and learnability, interface quality, interaction quality, reliability, satisfaction and future use. A 7-point Likert scale was used to rate responses, where 1 indicates "Strongly Disagree", 2 is "Disagree", 3 is "Somewhat Disagree", 4 is "Neither agree nor disagree", 5 is "Somewhat Agree", 6 is "Agree", and 7 is "Strongly Agree".

Validity and Reliability

To ensure the validity of the questionnaire, the research instrument was submitted to three validators who are masters' degree holders and are experts in the field of nursing administration and research in a private university in Iloilo City.

A pilot study was conducted among 33 respondents or 10% of the total population who are not part of the study. They were asked to complete the questionnaire twice, at a week interval. The results were compared to determine the consistency of responses. Cronbach's test for reliability was used, and a coefficient of 0.70 and above was considered reliable. By taking these measures, the study can ensure that the research instruments are valid and reliable, and that the data collected is accurate and meaningful.

Data Collection

Permission to conduct the study was obtained prior to the data gathering from the University through the letters of request where the target participants are studying. After getting the approval, necessary arrangements were made with the university medical clinic. An informed consent form was distributed directly to the respondents of the study. The form explained the purpose of the study, the procedures to be followed, the risks and benefits of participation, and the confidentiality of their responses. Respondents who agreed to participate were asked to sign the form. Survey questionnaires were distributed to the respondents through an online platform. The questionnaire was designed to collect quantitative data on student satisfaction and utilization of teleconsultation services. Throughout the data gathering procedure, the researcher ensured that ethical considerations are met. Confidentiality of participants' responses was maintained, and no identifying information was included in any publication or presentation of the results.

Data Processing and Analysis

The first step when processing and analyzing data was to clean the data by removing any errors or outliers and making sure that the data is complete and consistent. This involves checking for missing data, incorrect responses, and outliers.

Data gathered were then coded for analysis. This involved assigning numerical values or categories to the data, based on the research questions and hypothesis. Data were then entered into a statistical analysis software program, the Statistical Package for Social Sciences (SPSS) version 27 (IBM, 2022). This allowed for efficient and accurate data analysis. Descriptive statistics were used to summarize the data, such as mean, median, standard deviation, and frequency distributions. This provides a clear overview of the data and helps identify any patterns or trends. To test hypothesis and draw conclusions about the data, correlation analysis was used. Tables were used to present the data in a clear and concise manner.

Ethical Consideration

The study was submitted to the CPU Research Ethics and Review Board of Central Philippine University for review and approval.

Risk Assessment

There are negligible risks associated with participating in this study; however, if they felt uncomfortable with some of the questions, they may choose to skip any question that they feel uncomfortable answering. The researcher talked to them privately and give support and counselling whenever needed. The researcher

assured the respondents that this study is not part of their requirements in school, and they had the option to participate or not, without any influence on their grades.

Benefits Assessment

The research study has the potential to benefit the students and university administrators to policymakers and the community. The benefits may include improved healthcare access, enhanced service quality, and the promotion of telehealth practices in educational settings.

Withdrawal criteria of participants

Respondent's participation in this study was entirely voluntary. The respondents were made to understand that they could freely decide whether to be a part of the study or not. If they chose not to participate or to withdraw from the study at any time, there will be no penalty or other consequences and without need to give any reason. If at any time they withdraw from the study, their data would be discarded properly.

Anonymity and Confidentiality of Participants

To maintain the anonymity and confidentiality of respondents, the researcher ensured that any personally identifiable information, such as names, student IDs, or contact details, was not collected in the survey. Instead of using names or student IDs, each respondent was assigned a unique code or identifier. Survey data were stored on secure servers or platforms that utilize data encryption to safeguard against unauthorized access.

Voluntary, Non-coercive Recruitment of Participant

The respondents were told and made to understand this non-coercive statement: “In accordance with ethical research principles, participation in this study is entirely voluntary, and respondents are under no obligation to take part. No form of coercion, intimidation, or pressure will be exerted to encourage participation. Their decision to participate or decline will not have any impact on your standing within the university or any academic or personal matters. Their responses were treated with the utmost confidentiality and used for research purposes only.”

Disposal of Research Materials/Data

The electronic copy of the data will be kept in a computer that only the researcher has access to. Hard copies will be stored inside a storage box , which only the researcher has access to for three months and will be disposed after study has been completed and presented by shredding the document to ensure that the data and information cannot be retrieved.

Contribution to Local Capacity Building and Benefits to Local Communities

The local community may benefit in raising awareness and educating community members about teleconsultation. Possible contributions of the study are the improvement of teleconsultation services, could contribute to enhancing the quality and accessibility of healthcare services for students in private universities. It can serve as a foundation for further studies in the field of teleconsultation, student satisfaction, and healthcare utilization in academic settings. These can be shared

with other universities and institutions looking to implement or improve their teleconsultation services.

Incentives or Compensation for Participants

Participants were given a simple token to express the appreciation and gratitude of the researcher for their time and effort.

Disclosure or Declaration of Potential Conflict of Interest

The researcher declares no apparent or potential conflict of interest in the conduct of this study.

Dissemination Plan

Manuscripts were for submission to reputable academic journals in the fields of healthcare, education, and technology, and there was an aim to publish at least two articles based on the research findings within the next 12 – 18 months. Relevant academic conferences in the field were identified and there is a plan to present the research findings at an arranged town hall style meeting or seminar for local community members within the next months. Findings on how teleconsultation can benefit the community will be shared.

Chapter 4

Results and Discussions

This chapter presents the results, analysis, interpretation, and discussion of the data gathered using a one-shot survey design on the student satisfaction and utilization of teleconsultation in a private university in Iloilo City. The presentation follows the sequence of the research questions as stipulated in the statement of the problem.

Respondents Profile

Table 1 presents the profile of the respondents that were included in the study. As shown in the table below, the largest percentage of the respondents are in the 21-24 age group, with a total of 297 respondents, comprising 89.5% of the total population. The reason for this was that college students who were in their 3rd and 4th year, who belong to this age group, were the ones who were required to have their consultation and medical certificates for their OJT. As for the sex, data indicate that majority of the respondents (75.6%) were females, while 24.4% of the population were males.

For the year level, data indicate that a majority of respondents are in the 4th year, constituting 79.2%. This suggests that the population sample was primarily composed of respondents who are in their final year of study or training. The 3rd year represented 18.4% of the population. For the courses, health-related courses

(nursing, medical laboratory, medicine and pharmacy), comprise 56.3% with college of nursing constituting the largest proportion of the population at 44.3%.

As for the reasons for teleconsultation, the most prevalent reason was related to medical, physical examinations, or on-the-job training (OJT) teleconsultations, constituting more than half (53%) of the responses. Students utilized teleconsultation to seek medical advice, discuss health related concerns, or for OJT requirements. Checkup on sickness accounted for 35.9%. This suggests that students frequently utilize teleconsultation services to address health issues, receive medical diagnoses, or seek treatment recommendations for illness symptoms.

Table 1*Respondent's Profile*

Age	f	%
20 and below	17	5.1%
21-24	297	89.5%
25-34	18	5.4%
Total	332	100%
Sex		
Male	81	24.4%
Female	251	75.6%
Total	332	100%
Year		
1 st – 2 nd year	8	2.4%
3 rd year	61	18.4%
4 th year	263	79.2%
Total	332	100%
Course		
Health Related Courses	187	56.3%
CBA	96	29%
CCS	27	8.1%
Other courses	22	6.6%
Total	332	100%
Reason for Consult		
Med Cert/OJT/PE	176	53%
Checkup (sickness)	119	35.9%
Research	37	11.1%
Total	332	100%

Level of Satisfaction on Teleconsultation

The level of satisfaction on teleconsultation was determined using the adapted survey questionnaire from Medical Clinic of the Private University in Iloilo

Patient Satisfaction Rating (May 2018). The statements were answerable by a 5-level Likert scale indicating the respondents' satisfaction.

Table 2a showed that most respondents found teleconsultation to be beneficial for improving their access to healthcare services. A total of 53.9% of the respondents were highly satisfied that teleconsultation improved their access to healthcare services, indicating a high level of satisfaction and confidence in this mode of healthcare delivery. Additionally, 31% of them were moderately satisfied with the statement, further supporting the positive perception of teleconsultation among the student population. Only a small percentage, 15.1% of the respondents, indicated a low level of satisfaction with teleconsultation.

Overall, the survey results indicate a strong level of satisfaction and positive perception of teleconsultation among students at the private university in Iloilo City, suggesting that it is viewed as an effective means of improving access to healthcare services.

Table 2a

Level of Satisfaction

	f	%
Low	50	15.1
Moderate	103	31.0
High	179	53.9
Total	332	100

Table 2b presents the distribution of respondents according to their satisfaction with teleconsultation. Based on the results, internet connectivity was rated by 88.9% of the respondents, indicating that most respondents were satisfied with internet connectivity during teleconsultation. However, since this was the lowest percentage among the categories, it suggests that there was still room for improvement. For the organized teleconsultation flow, the majority of respondents, 93.1% of them, were satisfied. This high satisfaction rate indicates that the structure and organization of the teleconsultation flow were well received by the respondents. Efficient organization is needed for a smooth teleconsultation experience, and this score was positively reflected in this aspect. Promptness in answering queries was rated 87.7%. While this result is still high, this was the second lowest satisfaction rate. Some respondents may have experienced delays in their queries. Improving response times could enhance overall satisfaction. The majority of respondents, 94.3%, were satisfied with the clear and detailed instructions given during teleconsultation. Giving of detailed instruction is needed for effective respondents' guidance and follow up. High levels of satisfaction with staff amiability, at 91.6%, contributed to positive user experiences, enhancing respondents' comfort and confidence in engaging with teleconsultation services. Friendly and personable interactions with staff members create a supportive and welcoming atmosphere, facilitating open communication, trust-building, and effective problem-solving during teleconsultation sessions. Attentiveness of staff members comprised 92.2%. Attentiveness creates a supportive and responsive environment, enabling effective

communication, problem-solving, and information exchange during teleconsultation sessions. The majority of the respondents, 94.9%, answered a high level of satisfaction with staff competency which contributed to positive user experience, enhancing students' confidence and trust in teleconsultation services. The result suggested that respondents have great confidence in the staff's abilities and knowledge.

Overall, the high satisfaction rates in all categories indicate a positive perception of the teleconsultation experience. The areas with highest satisfaction, competency and comprehensiveness in giving instructions, highlight strengths in staff expertise and communication.

Table 2b

Distribution of Respondents according to Satisfaction with Teleconsultation

Satisfaction with Teleconsultation	Low Satisfaction	Moderate Satisfaction	High Satisfaction
	%	%	%
Functional	0.3	10.8	88.9
Organized teleconsultation flow	0.3	6.6	93.1
Promptness	0.6	11.7	87.7
Comprehensive in Giving Instructions	0.6	5.1	94.3
Amiability of Staff	0.9	7.5	91.6
Attentiveness of Staff	0.3	7.5	92.2
Competency	0.3	4.8	94.9

Level of Utilization

Table 3 presents the level of utilization of teleconsultation among the university students. Data in Table 3 show that more than half of students (52.4%) have high satisfaction on the utilization of teleconsultation. This high percentage

indicates a strong level of satisfaction among students in a private university in Iloilo City regarding their willingness to utilize telehealth services again in the future.

The high level of agreement with the willingness to use telehealth services again suggests a positive outlook for its utilization among students. With over half of the respondents highly satisfied that they would use telehealth services again, it indicates a high likelihood of continued or increased future use of telehealth services by students in the university. This positive result is promising for the further integration and adoption of telehealth services within the university setting in Iloilo City. Overall, while the majority of students are satisfied with the teleconsultation services, it's essential to consider the concerns and feedback of those who have reservations to further enhance the effectiveness and utilization of teleconsultation in the university setting. The survey results also indicate that most respondents in the university regard the time saving benefits of teleconsultation.

This result affirmed the study of Alwhaibi et al. (2020), he examined the utilization of teleconsultation services among medical students during the COVID-19 pandemic. The study found that the majority of medical students utilized teleconsultation services and were satisfied with the quality of care received. The study also found that teleconsultation was perceived as a safe and effective means of receiving healthcare services.

Table 3*Level of Utilization*

	f	%
Low	65	19.6
Moderate	93	28.0
High	174	52.4
Total	332	100

Table 4 is about the relationship between satisfaction and utilization. The p-value < 0.000 indicate that the relationship between satisfaction and utilization of teleconsultation is significant. The result suggested that the relationship was unlikely to be due to chance, providing strong evidence to support the observed relationship of student satisfaction and utilization of teleconsultation in the university.

Spearman's rho coefficient of 0.754 indicates a strong positive correlation between satisfaction and utilization, implying that as satisfaction with teleconsultation increases, the utilization of teleconsultation services also tends to increase among students at the university.

Relationship between Satisfaction and Utilization**Table 4***Satisfaction and Utilization Cross Tabulation*

Satisfaction	Utilization							
	Low		Moderate		High		Total	
	f	%	f	%	f	%	f	%
Low	39	78.0	5	10.0	6	12.0	50	100.0
Moderate	24	23.3	64	62.1	15	14.6	103	00.0
High	2	1.1	24	13.4	153	85.5	179	100.0
Total:	13	8.2	94	59.1	44	27.7	332	100.0

Spearman's rho: .754 (High Correlation) p-Value = .000 (Significant)

Chapter 5

Summary, Major Findings, Conclusions, and Recommendations

Summary

The study sought to determine the student satisfaction and utilization of teleconsultation in a private University in Iloilo City. Specifically, it aimed to describe the following. First, respondent's profile as to age, sex, department, and year level. Second, to determine respondent's level of satisfaction of teleconsultation in a private University in Iloilo City. Third, to determine respondent's level of utilization of teleconsultation in a private University in Iloilo City. And lastly, to determine whether there is a significant relationship between respondent's satisfaction and utilization of teleconsultation in a private University in Iloilo City. With a sample size of 332 students from different colleges of Central Philippine University in Iloilo City.

Major Findings

1. The majority of individuals seeking teleconsultation services are between the ages 21 to 24, with a significant portion being 23 years old. Additionally, the data shows a higher representation of females (75.6%) compared to males (24.4%). Most teleconsultation requests come from individuals in Level 4 of their education, with a large proportion being from the College of Nursing.
2. The majority of respondents had high satisfaction with teleconsultation services across various aspects, including facilities, services rendered, and staff. The majority of responses in each category rated the service as excellent (5.00), indicating a positive perception of teleconsultation

experience among students. The areas with highest satisfaction were the staff competency (94.9%) and comprehensiveness in giving instructions (94.3%), which highlight the strengths in staff expertise and communication.

3. Level of utilization showed that more than half of students (52.4%) have high satisfaction on the utilization of teleconsultation. This high percentage indicates a strong level of satisfaction among students at the private university in Iloilo City regarding their willingness to utilize telehealth services again in the future. The majority of respondents rated their teleconsultation experience as excellent (7.00), indicating a positive perception and utilization of teleconsultation services.
4. The p -value < 0.000 indicated that the relationship between satisfaction and utilization of teleconsultation is significant. The result suggested that the relationship was unlikely to be due to chance, providing strong evidence to support the observed relationship of student satisfaction and utilization of teleconsultation in the university. Spearman's rho coefficient of 0.754 indicates a strong positive correlation between satisfaction and utilization, implying that as satisfaction with teleconsultation increases, the utilization of teleconsultation services also tends to increase among students of the university.

Conclusions

1. The demographic profile of the respondents provides valuable insights into the distribution and progression of the study. It helps in resource allocation and policy formation to address different needs of every patient.
2. High level of student's satisfaction on teleconsultation reflects the university's success in providing accessible, reliable, and user-centric teleconsultation services, while also highlighting opportunities for further enhancement to optimize service and promote student engagement.
3. High level of student's satisfaction on the utilization of teleconsultation reflects the university's success in providing effective means of improving access to healthcare services. This high percentage indicates a strong level of satisfaction among students at the private university in Iloilo City regarding their willingness to utilize telehealth services again in the future.
4. There is a significant relationship between student satisfaction and utilization of teleconsultation in a private university in Iloilo City. It implies that as student satisfaction of teleconsultation increases, the utilization of teleconsultation services also tends to increase.

Recommendations

The following suggestions were made considering the study's findings and conclusions:

1. Given the high demand for teleconsultation services among individuals in their early twenties and from the College of Nursing, healthcare providers should

tailor their teleconsultation services to address the specific needs and concerns of this demographic group.

2. Despite the high satisfaction levels, continuous improvement efforts should be made to ensure that teleconsultation services remain effective and meet students' evolving needs. This could involve regularly gathering feedback from students to identify areas for enhancement, investing in staff training to maintain service quality and efficiency, and implementing technology upgrades to enhance the teleconsultation experience further. Additionally, promoting awareness of teleconsultation services and providing clear guidelines on how to access and utilize them can help increase student engagement and utilization of these valuable resources.
3. To further enhance the utilization of teleconsultation services, it is recommended to continue promoting awareness and accessibility of these services among the target population. This can be achieved through targeted marketing campaigns, educational initiatives to highlight the benefits and convenience of teleconsultation and ensuring seamless integration of teleconsultation platforms with existing healthcare systems. Additionally, regularly gathering feedback from users to identify areas for improvement and addressing any issues promptly can help optimize the teleconsultation experience and encourage continued utilization.
4. Given the high satisfaction levels and positive future outlook for telehealth utilization among students, it is recommended to continue investing in and

promoting telehealth services within the university setting. This could involve expanding telehealth offerings, improving technological infrastructure to enhance the telehealth experience, providing additional training and support for clinicians and students utilizing telehealth, and implementing strategies to increase awareness and accessibility of telehealth services. By addressing any remaining concerns and continuously improving telehealth offerings, the university can further integrate and adopt telehealth services to meet the evolving healthcare needs of its student population in the university.

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APPENDIX A
INFORMED CONSENT



RESEARCH ETHICS REVIEW BOARD



CENTRAL PHILIPPINE UNIVERSITY

Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

INFORMED CONSENT FORM (ICF) TEMPLATE

(VERSION No. 03-2023)

1. KEY INFORMATION ABOUT THE RESEARCHERS

Title of the Study: Student Satisfaction and Utilization of Teleconsultation in a Private University in Iloilo City

Name of Researcher/s: Lita Q. Gajitos, RN

Research Adviser: Herme A. Borlado, MAN, RN

Department/College: School of Graduate Studies – Master of Arts in Nursing

Institution: Central Philippine University

2. INTRODUCTION/BACKGROUND OF THE STUDY

They are invited to take part in this research study. This form contains information that will help them in deciding whether to participate or not in this study/research. Before they decide to participate in this study, they will be given enough time to read and understand the contents of the informed consent. If there are words or concepts that they do not understand feel free to ask questions at any time, the researchers are willing to explain it to them and their questions will be answered to their satisfaction. The study will begin once they have signed the informed consent form.

Due to COVID 19, healthcare services in educational institutions has witnessed a transformation shift from face to face to teleconsultation. A telehealth modality allows students to access medical and support services remotely through digital platforms. Teleconsultation holds the potential to offer students convenient and timely access to healthcare counselling and other support services. *The key areas of interest include the frequency and patterns of teleconsultation utilization, the factors influencing students' choice to use teleconsultation, the quality of interactions with healthcare professionals in a virtual setting, and the overall satisfaction levels of students.*

3. PURPOSE OF THE RESEARCH

The purpose of this research study is to determine the student satisfaction and utilization of teleconsultation in a private university in Iloilo City.

4. TYPE OF RESEARCH INTERVENTION/DATA GATHERING INSTRUMENT

The researchers will use a questionnaire to collect data on student satisfaction and utilization. This method allows to gather self-reported information from a sample of students on their teleconsultation experience. It can be designed to collect structured data on student satisfaction, utilization, reasons for use, barriers or challenges they encounter. There will be 3 parts Part I – Demographic Profile Part II – an adapted questionnaire from CPU Medical Clinic (Patient Satisfaction Rating HEA Form 19) Part III an adapted questionnaire from (Development of the Telehealth Usability Questionnaire (TUQ) by Parmanto B. Lewis AN Jr. Graham KM, Bertolet MH (2016).

5. PARTICIPANT SELECTION (INCLUSION & EXCLUSION CRITERIA)

They are chosen as a participant based on the following criteria:

1. Bonafide student of Central Philippine University
2. A student who utilized teleconsultation from Aug. 2022 – April 2023.

The following are excluded:

1. Students who have not utilized teleconsultation.
2. Students who are unable to provide informed consent.

6. VOLUNTARY PARTICIPATION

Their participation in this study is entirely voluntary. It is their choice whether to participate or not. If they choose not to participate or to withdraw from the study at any time, there will be no penalty or other consequences and without need to give any reason.

7. PROCEDURE

They will answer a checklist type, self – administered questionnaire that will take approximately 20 - 30 minutes. This contains three parts and will be given face to face on your free time. The researcher is available during the time of survey to make sure that any clarifications from the participants will be address accordingly. It will be collected right after they completed all the parts. To protect privacy and anonymity, the participants are not required to write their names, and the accomplished checklist will then be placed inside the box for safe keeping. Only after completing the needed number of participants the researcher will open the box to start the tally of data. The researcher has the only access to the raw data from the checklist.

8. DURATION OF THE STUDY

This study will be conducted on August 2023 to December 2023. You will be given 20 – 30 minutes to answer the given questionnaire.

9. RISKS AND INCONVENIENCES

There is negligible risks associated with participating in this study. However, if they feel uncomfortable with some of the questions, they may choose to skip any question that they feel uncomfortable answering. The researcher will talk to them privately and give any support and counselling if needed. The researcher

assures the respondents that this study is not part of their requirements in school and they have the option to participate or not, without any influence on their grades.

10. BENEFITS

This study might help the students and university administrators to policymakers and the community. The benefits may include improved healthcare access, enhanced service quality, and the promotion of telehealth practices in educational setting.

11. REIMBURSEMENTS

They will be given a simple token to express the appreciation and gratitude of the researcher for their time and effort.

12. CONFIDENTIALITY

The information they have provided is solely for the purpose of this study. Their identity will be kept private and confidential to the extent provided by law. They will be assigned an ID number and their data will be stored with utmost respect to their privacy.

13. RIGHT TO REFUSE OR WITHDRAW

Their participation in this study is entirely voluntary. It is their choice whether to participate or not. If they choose not to participate or to withdraw from the study at any time, there will be no penalty or other consequences and without need to give any reason. If at any time they withdraw from the study, their data will be discarded properly.

14. DECLARATION OF CONFLICT INTEREST

The researchers declare no apparent or potential conflict of interest in the conduct of this study.

15. STORAGE AND DISPOSAL OF RESEARCH DATA/MATERIALS

The electronic copy of the data will be kept in a computer that only the researcher(s) has/have access to. Hard copies will be stored inside the steel cabinet in her study room that only the researcher(s) will have access to for 3 months and will be disposed after study has been completed and presented by shredding the document to ensure that the data and information cannot be retrieved.

16. SHARING OF RESULTS/DISSEMINATION PLAN

As a participant, they are informed that the research findings will be shared more broadly through publications or conferences. As part of the dissemination plan is to prepare manuscripts for submission to reputable academic journals in the field of healthcare, education and technology. Aim to publish at least 2 articles based on the research findings within the next 6-12 months. Arrange a seminar for local community members within the next months to share findings on how teleconsultation can benefit the community.

17. WHO TO CONTACT

If they have any questions or clarifications regarding their participation in the study, they may contact:

Lead Researcher: Lita Q. Gajitos, RN
 Address: Blk.36 Lot 19 DHPRR Village 2 Brgy. Jibao an, Pavia Iloilo
 Contact Number: 09212426471
 Email address: litagajitos@gmail.com

If they have questions pertaining to their rights as a participant, they may contact:

Joy G. Raso, PhD.
 Chair, CPU Research Ethics Review Board
 Email: researchethics@cpu.edu.ph
 Phone: 329-1971 (local 3336)

18. CERTIFICATE OF CONSENT

I have read the foregoing information, or it has been read and explained to me in a language/dialect I know and understand. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print name of participant _____

Signature of participant _____

Date _____

MM/DD/YYYY

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best on my ability made sure that the participant understands that the following will be done.

- 1.**
- 2.**
- 3.**
- 4.**

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Print Name of Researcher/person taking the consent_____

Signature of Researcher/ person taking the consent_____

Date:_____

MM/DD/YYYY

	<u>system. I could recover easily and quickly u by.</u>							
<u>17</u> :	<u>The system gave error messages that clearly told me how to fix problems.</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Satisfaction and Future use							
<u>18</u> :	<u>I feel comfortable communicating with the clinician using the telehealth system.</u>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>
<u>19</u> :	<u>Telehealth is an acceptable way to receive healthcare services.</u>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	
<u>20</u> :	<u>I would use telehealth services again.</u>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	
<u>21</u> :	<u>Overall I am satisfied with this telehealth system.</u>	<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>	

Adapted from: Parmanto B. Lewis AN Jr. Graham KM,
Bertolet MH. (2016). "Development of the Telehealth
Usability Questionnaire (TUQ)", *Int J Telerehabil*,
8(1):3-10. DOI; 10.5195/ijt.2016.6196. PMID:
27563386

**APPENDIX C
CERTIFICATE OF VALIDATION**



Central Philippine University
SCHOOL OF GRADUATE STUDIES

Master of Arts in Nursing Program

CERTIFICATION

This is to certify that the Questionnaire of the study entitled "Student Satisfaction and Utilization of Teleconsultation in a Private University in Iloilo City" by Lita Q. Gajitos has undergone instrument validation and was found to be suitable based on the research objectives and design.

This certification is issued for whatever purpose it may serve best.

Signed by:

A handwritten signature in black ink, appearing to read "Adelfa D. Dusaran".

Prof. Adelfa D. Dusaran, MAN, RN
Validator



Central Philippine University
SCHOOL OF GRADUATE STUDIES

Master of Arts in Nursing Program

CERTIFICATION

This is to certify that the Questionnaire of the study entitled "Student Satisfaction and Utilization of Teleconsultation in a Private University in Iloilo City" by Lita Q. Gajitos has undergone instrument validation and was found to be suitable based on the research objectives and design.

This certification is issued for whatever purpose it may serve best.

Signed by:

A handwritten signature in black ink, appearing to read "R Partisala".

Dr. Raymund H. Partisala, MN
Validator

July 26, 2023



Central Philippine University
SCHOOL OF GRADUATE STUDIES

Master of Arts in Nursing Program

CERTIFICATION

This is to certify that the Questionnaire of the study entitled "Student Satisfaction and Utilization of Teleconsultation in a Private University in Iloilo City" by Lita Q. Gajitos has undergone instrument validation and was found to be suitable based on the research objectives and design.

This certification is issued for whatever purpose it may serve best.


Signed by:

A handwritten signature in black ink, appearing to read "Jerry V. Able".

Dr. Jerry V. Able
Validator

**APPENDIX D
CERTIFICATE OF TECHNICAL REVIEW**

<small>Serial Class Serial Date</small>	<small>Page 1 of 1 Page 2 of 2</small>	<small>Page 3 of 3 Page 4 of 4</small>	<small>Page 5 of 5 Page 6 of 6</small>
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CENTRAL PHILIPPINE UNIVERSITY
Iloilo, Iloilo City, Philippines

SCHOOL OF GRADUATE STUDIES

CERTIFICATE OF APPROVAL


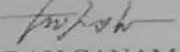
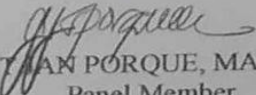
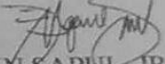
August 16, 2023

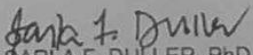
To Whom It May Concern:

This is to certify that LITA Q. GAJITOS, a Master of Arts in Nursing candidate, presented the research proposal last May 31, 2023, entitled "STUDENT SATISFACTION UTILIZATION OF TELECONSULTATION IN A PRIVATE UNIVERSITY IN ILOILO CITY."

The members of the panel certify that this paper was reviewed for its technicalities

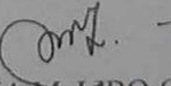
This certification is issued upon the request of the LITA Q. GAJITOS for the purpose of ERB (Research Ethics Review Board) processing and approval.

 <p>HERMIE A. BORLADO, MAN, RN Adviser/ Program Coordinator</p>	 <p>TONY RAY CANAMAN, M Panel Member</p>
 <p>GELBERT MAN PORQUE, MAN, MHA, RN Panel Member</p>	 <p>JOAQUIN SAPUL, JR., M Outside Expert</p>



SARLA F. DULLER, PhD, MN, RN, NP

Chair



ROWENA M. LIBO-ON, DM
Dean, School of Graduate Studies



REVIEW, CONTINUING EDUCATION and CONSULTANCY CENTER
Central Philippine University
Jaro, Iloilo City
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August 14, 2023

CERTIFICATION

This is to certify that the proposal entitled “**STUDENT SATISFACTION AND UTILIZATION OF TELECONSULTATION IN A PRIVATE UNIVERSITY IN ILOILO CITY**” by **Lita Q. Gajitos** has undergone Turnitin Similarity Checking/Plagiarism Scanning with a passing percentage of **15%** and has passed the requirements (Chapter 1-3).

Prepared by:

PINKY E. LUTERO-TONGOL
Staff -in-charge

Approved by:

LENNY ROSE P. MUCHO, EdD.
Director, CPU-RCECC

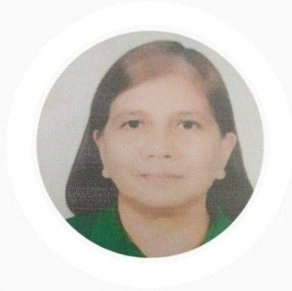
APPENDIX F

BUDGET

BUDGET

Particulars	Amount
Title Defense	4200.00
Proposal Defense	5850.00
Questionnaire reproduction	1500.00
Final Defense	9,600.00
Token to respondents	1500.00
Token for Validators	2000.00
Grammarian	2400.00
Statistician	2400.00
Technical Editor	3600.00
Ethic Review	2500.00
Plagiarism Check	1000.00
Total:	P36, 550.00

APPENDIX G CURRICULUM VITAE OF RESEARCHER



LITA Q. GAJITOS

SCHOOL OF GRADUATE STUDIES
MASTER IN ARTS IN NURSING

CONTACT

☎ 09212426471

✉ lqgajitos@cpu.edu.ph

📍 Blk 36 lot 19 DHPRR Village 2 COD
St. Brgy. Jibao-an Pavia

EDUCATION

LaPaz Elementary School

1966-1972

Iloilo National High School

1972-1976

Central Philippine University

1976-1980

WORK EXPERIENCE

**CENTRAL PHILIPPINE UNIVERSITY
FACULTY, COLLEGE OF NURSING**

2005-2012

**CENTRAL PHILIPPINE UNIVERSITY
UNIVERSITY NURSE**

2019 - Present

DUTIES AND RESPONSIBILITIES

- I. Overall Responsibility
Manages the physical set up of the clinic and assist the physicians in all medical activities.
- II. Duties and Responsibilities
 1. Facilities schedules of routine clinical check-ups of students and renders emergency and first aid treatments.
 2. Administers initial medication per doctor's order.
 3. Conducts patients to the hospital and home as referred by physicians
 4. Inform and coordinate with teachers, parents of students regarding health emergencies and follow-up patient condition at home/hospitals.
 5. Records daily consultation: name of patients, medicines provided, injections, immunization administered, dressing, pulmo-aide inhalation and ECG made.
 6. Prepares requisition of equipment and supplies needed in the clinic approved by medical clinic coordinator to the purchasing officer.
 7. Performs other specific tasks as may be required by the physicians in line with the official functions of the clinic.

APPENDIX H GANTT CHART

APPENDIX I
CERTIFICATE OF ETHICAL CLEARANCE

APPENDIX J
CERTIFICATION OF STATISCAL ANALYSIS

APPENDIX K
PROTOCOL REVIEW OF PROGRESS REPORT

**APPENDIX L
FINAL REPORT FORM**

APPENDIX M
CERTIFICATION OF GRAMMAR AND STYLE