



Acceptability of Telemedicine Services Among Hypertensive Patients in Davao City, Philippines

Dujali, Anna Rea Monique E.^a, Parrilla, Audrei Mae N.^a, Carr, Jim Myka Z.^a, Obeja, Krysyl Ann A.^a, Molina, Maisie May T.^a, Vidal, Neil Brian E.^a, Navarro, Percy John F.^a, and Faller, Erwin M.^a

^a School of Allied Health Sciences, Department of Pharmacy, San Pedro College, Davao City, 8000, Philippines

DOI: <https://doi.org/10.55248/gengpi.4.623.44287>

ABSTRACT

Telemedicine has been a vital technology in providing healthcare service from a distance. Due to the mandatory social distancing brought by the pandemic, it has been the safest interactive system between patients and healthcare professionals for the diagnosis, treatment, and management of disease. This study investigates the acceptability of telemedicine services among hypertensive patients in Davao City in terms of attitude, perceived ease of use, and perceived usefulness as well as its relationship with demographic profiles. The research employed a quantitative descriptive cross-sectional design utilizing a quota sampling technique. Data were collected from 265 hypertensive patients within the three villages (Barangay 6-A, Buhangin proper, and Toril poblacion) of the three congressional districts of Davao City to examine their level of acceptability with regards to healthcare delivery using telemedicine. The findings of the study indicate a significant relationship between demographic profile and the level of acceptability in terms of age and educational attainment, specifically in perceived ease of use and attitude respectively. As a conclusion, people had a favorable view towards telemedicine and regarded it as an important component of the healthcare delivery system.

Keywords: Telemedicine services; hypertensive patients; demographic profiles; attitude; perceived ease of use; perceived usefulness **Introduction**

1. Introduction

The World Health Organization (WHO) announced the COVID-19 pandemic in March 2020, months after the outbreak in Wuhan, China [1]. The initial response to COVID-19 ensures continued health care services to slow the virus's spread. However, based on recent events, the number of people becoming ill and requiring hospitalization is rapidly increasing beyond the health system's capacity. With this, the need to limit face-to-face consultations without compromising the quality of health services has highlighted the importance of using telemedicine to connect patients and health professionals [2]. According to WHO, telemedicine is "the delivery of healthcare services, by all health care professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and continuing education of health care providers, all in the interests of advancing the health of individuals and communities" [3].

In Global efforts to halt the spread of the virus, social distancing and isolation are regarded as effective containment measures implemented worldwide. As a result, almost all healthcare systems and medical facilities offer at least one sort of telemedicine service to encourage the usage of telemedicine. In the Philippines, there is currently no specific regulation that was passed into law that would guide the utilization of telemedicine in the country [4]. Thus, the Department of Health (DOH) continues to push for implementing national telemedicine guidelines created in collaboration with the University of the Philippines and the National Privacy Commission. Moreover, the DOH, together with the Department of Science and Technology, has developed what is called the RxBox to hopefully bridge and help lessen the gap between patients and quality health care. [5]. On the local scale, Davao City Mayor Sara Duterte launched a telemedicine program called "Tawag kay Doc" in March 2020 during the emergence of the COVID-19 pandemic. The service was created to handle COVID-19-related consultations or common illnesses for which people may not feel it necessary to visit a hospital. Unfortunately, the program ended in July 2020, but not before it had made a considerable contribution to supporting the people throughout the city's lockdown [6].

Mandatory social distancing and the lack of effective treatments have made telemedicine the safest interactive system between patients, both infected and uninfected, and clinicians simultaneously. It has been a great way of providing medical and healthcare services from a distance [7]. However, here in the Philippines, there are only limited data and regulatory guidelines to support the practice of telemedicine. The proponents have observed that telemedicine services have a more extensive implementation in other countries than here. Thus, the proponents of this study would like to know the acceptability of telemedicine services in Davao City. This study will benefit the community because not only will it serve as an awareness of telemedicine, but also it will contribute to the implementation of telemedicine services in Davao City and hopefully in the national setting.

2. Methodology

2.1 Research Design

This research employed a descriptive cross-sectional design to determine the significant relationship between demographic profile and the acceptability of telemedicine services among hypertensive patients in Davao City. This research is descriptive in the sense that it provides a factual and accurate explanation of the situation regarding the current level of acceptability of telemedicine services among hypertensive patients in Davao City. Moreover, this study is cross-sectional since it contains the key characteristics of a cross-sectional design, such as taking place at a single moment in time and not needing interventions or manipulation of variables. It allows the proponents to look at multiple variables at once, and it is used to examine the prevailing characteristics of a given population and provide information about a current situation. Rather than cause-and-effect relationships, descriptive cross-sectional designs entail a systematic exploration of the nature of associations between and among variables. The descriptive cross-sectional design describes the natural relationship between variables [8]. With this, the research proponents surveyed the study's respondents to determine their level of acceptability to telemedicine services and the significant relationship between the demographic profile and the level of acceptability of telemedicine services in terms of attitude, perceived ease of use, and perceived usefulness.

2.2 Sampling Technique/Design

The respondents in the study sample were from Davao City, located on the second-largest island in the Philippines, Mindanao. Davao City is situated in the province of Davao del Sur, and according to the World Population Review, it has a population of 1,866,401 [9]. The researchers used quota sampling, precisely controlled quota sampling, to select the sample group as the inclusion and exclusion criteria for the respondents need to be considered. With this, the population of hypertensive patients in Davao City was divided into subgroups based on geography; thus, the population was divided into First, Second, and Third Congressional Districts.

Hypertension in the Philippines is 602.4 cases per 100,000 populations [10]. The researchers used this data to estimate the hypertensive cases in Davao City, and after computing approximately, there are 11,243 hypertension cases in the city. With this, the researchers decided for the sample size to be 264. This is in consideration with the availability of respondents and the feasibility of this study during the pandemic and with online classes. The proponents decided that the proportion to be taken per subgroup would be 33.3%. Thus, a total of 88 respondents will be gathered from each and within the three congressional districts.

2.3 Population

The researchers had a total of 264 respondents from the population of the estimated hypertensive cases in Davao City. A total of 88 respondents were gathered from each of the three congressional districts. The desired sample size of the population is in consideration with accessibility and availability of respondents. The researchers conducted their research from the three congressional districts of Davao City to have higher chances of gathering data.

2.4. Locale of the Study

The study was conducted in the three congressional districts of Davao City. The three districts have a total of 182 barangays. The samples or respondents were from the 182 barangays only in consideration of the accessibility of location for the researchers. The research was conducted by selecting 264 respondents that fit the criteria. As determined by the World Population Review, the city's total population is 1,866,401. Davao City has a total land area of 2,444 sq. km. making it the largest city in the Philippines in terms of land area [11]. The permanent residents of Davao City residing in any of the three congressional districts were the researchers' respondents and were surveyed. The researchers chose specific locations to implement the study: areas close to Barangay 6-A for the first district, Buhangin proper for the second district, and Toril Poblacion for the third district. This is to make the gathering of the information achievable and convenient. Most of the researchers reside in different parts of Davao City, and it was less complicated for them to coordinate with the respondents in these locations. Health protocols were followed throughout the process of gathering data. During the implementation of the study, the researchers' mentor helped by checking and asking about the progress of research tasks every synchronous week. Moreover, the mentor monitored the progress and gently provided tips and academic guidance on everything from developing a thesis and preparing for the final defense.

2.5 Research Instrument

This research study utilized an adapted survey questionnaire as a primary tool in gathering and collecting data to assess the hypertensive patient's acceptability of Telemedicine services in Davao City [12,13]. Before disseminating the questionnaire, the respondents were asked for their consent and essential data about telemedicine. The questionnaire was distributed to the selected respondents that fit the criteria. The criteria excluded individuals who do not reside in Davao City, non-hypertensive individuals, and respondents who refused to sign the informed consent to participate in this study.

Furthermore, the researchers used the 5-point Likert scale for the survey questionnaire from 1=Strongly Disagree to 5=Strongly Agree. The survey questionnaire was divided into two parts. The first part contained the demographic profile of the respondents. The items in this portion of the questionnaire include the respondent's age [14], gender, educational attainment, and economic status [15]. The second part comprised questions to evaluate the respondent's acceptability of Telemedicine services in terms of the parameters of this study: attitude, perceived ease of use, and perceived usefulness. This portion of the questionnaire consists of six items to assess attitude, six to consider perceived ease of use, and six to assess perceived efficacy. The

respondents will be asked to answer the eighteen key questions by ticking the answers based on the ranking scale categorized as strongly disagree, disagree, neutral, agree, and strongly agree. The researchers will be conducting pilot testing to test the reliability of the questionnaires, and by using Cronbach's Alpha, the proponents tested the internal consistency and reliability of the measurements. For the pilot testing, the researchers gave the survey questionnaires to 20 hypertensive patients from the samples selected in Davao City. The reliability of the questionnaire was further verified and validated by three experts in various research fields.

TABLE 2.1

Description of the five-point Likert scale

| Point | Description |
|-------|-------------------|
| 1 | Strongly Disagree |
| 2 | Disagree |
| 3 | Neutral |
| 4 | Agree |
| 5 | Strongly Agree |

2.6 Data Analysis (Statistical Tool)

The researchers utilized percentage and frequency, mean, and chi-square in determining the respondents' level of acceptability of telemedicine services and the significant relationship between the demographic profile of hypertensive patients and the acceptability of Telemedicine Services in Davao City. The following statistical tools were used to interpret the data gathered from the study's respondents. Namely: Percentage and Frequency which was used to identify the demographic profile of the respondents in terms of age, gender, educational attainment, and economic status, Mean which was used as a statistical tool to determine the level of acceptability of telemedicine services in attitude, perceived ease of use, and perceived usefulness, and Chi-square, to determine the significant relationship between gender and the acceptability of telemedicine services.

TABLE 2.2

Mean Score Interpretation

| Mean Score | Interpretation |
|------------|-------------------|
| 1.0-1.5 | Very Low Extent |
| 1.51-2.50 | Low Extent |
| 2.51-3.50 | Moderate Extent |
| 3.51-4.50 | Great Extent |
| 4.51-5.00 | Very Great Extent |

*Interpretation for attitude, perceived ease of use, and perceived usefulness

3 Results and Discussion

3.1 Survey Tool Validation

TABLE 3.1

Survey Questionnaire Reliability Test

| Cronbach's Alpha | N of Items | Decision |
|------------------|------------|------------|
| 0.839 | 18 | Acceptable |

The survey questionnaire of this study was put to the test in terms of reliability and consistency. The reliability analysis using Cronbach Alpha found that all reliability indices exceeded 0.854, indicating that the survey questionnaire is an effective research instrument to assess the hypertensive patient's acceptability of Telemedicine services. Cronbach alpha indicates that a value of 0.5 and lower is regarded as unacceptable, 0.51 to 0.60 is poor, 0.61 to 0.70 is questionable, 0.71 to 0.80 is acceptable, and 0.81 to 0.90 is good and 0.90 and above is considered excellent.

3.2 Presentation, Analysis and Interpretation of Data

This part of the paper presents the overall data of the study that aims to identify the level of acceptability of Telemedicine Services among Hypertensive patients in Davao City. Descriptive and inferential statistics were utilized to assess if the demographic profile is a predictor variable in the level of acceptability of telemedicine among hypertensive patients.

3.2.1 Demographic Profile

TABLE 3.2

Shows the demographic profile of respondents in terms of Age, Gender, Highest Educational Attainment, and Economic Status

| Profile | Categories | <i>f</i> | % Distribution |
|--------------------------------|----------------------|----------|----------------|
| Age | 18-29 | 38 | 14.4 |
| | 30-39 | 70 | 26.5 |
| | 40-49 | 73 | 27.7 |
| | 50-59 | 57 | 21.6 |
| | 60 and above | 26 | 9.8 |
| Gender | Female | 126 | 47.7 |
| | Male | 109 | 41.3 |
| | Prefer not to say | 29 | 11.0 |
| Highest Educational attainment | Elementary Graduate | 11 | 4.2 |
| | Highschool Graduate | 73 | 27.7 |
| | Vocational Graduate | 36 | 13.6 |
| | College Graduate | 117 | 44.3 |
| | Post graduate | 27 | 10.2 |
| Economic Status/Annual Income | No income | 35 | 13.3 |
| | Less than P 140,280 | 136 | 51.5 |
| | P 140,280-561,132 | 60 | 22.7 |
| | P 561,132-981,984 | 20 | 7.6 |
| | P1,683,408-2,805,672 | 7 | 2.7 |
| | At least 2,805,684 | 6 | 2.3 |

Results of the demographic characteristics of the respondents revealed that the majority of the hypertensive patients were 30-39 years old (26.5%) and 40-49 years old (27.7%). Likewise, there is almost an equal distribution of Female (47.7%) and Male (41.3%) hypertensive patients. Further, most hypertensive patients were college graduates (44.3%) with an annual income of less than P140, 280 (51.5%).

3.2.2 Level of Acceptability

Telemedicine allows health care providers to examine, diagnose and treat patients at a distance utilizing telecommunications technology. This has been through a stunning transformation in the previous decade, and it is becoming an increasingly significant element of healthcare providers, notably amid the Covid-19 epidemic. Hence, the level of acceptability in attitudes, perceived ease of use, and perceived usefulness among hypertensive patients on telemedicine were recorded, and the overall data is shown in table 3.3.

TABLE 3.3

Mean Level of the Acceptability of Telemedicine Services among Hypertensive Patients in Davao City

| ITEMS | | | |
|--|-------------|---------------|---------------------|
| A. ATTITUDES | Mean | SD | Description |
| I think it is a good idea to use telemedicine services for my medical needs. | 4.07 | 0.8264 | Great extent |
| I believe that telemedicine service improves the quality of healthcare services. | 3.99 | 0.7799 | Great extent |
| I think the use of telemedicine lowers health risks that are associated with transmittable diseases brought by face-to-face consultations. | 4.24 | 0.8086 | Great extent |
| I believe telemedicine service enhances communication with healthcare professionals. | 3.98 | 0.8061 | Great extent |
| In my opinion, telemedicine service is better compared to traditional medical care. | 3.41 | 1.1762 | Great extent |
| I find telemedicine service valuable in the healthcare delivery system. | 4.11 | 0.7697 | Great extent |
| Overall Mean | 3.97 | 0.6120 | Great extent |

| ITEM | | | |
|---|-------------|---------------|---------------------|
| A. PERCEIVED EASE OF USE | Mean | SD | Description |
| I find that gaining access to telemedicine services is simple. | 3.69 | 0.9516 | Great extent |
| I find the instructions for using telemedicine services are simple to understand. | 3.66 | 0.9820 | Great extent |
| I find It simple to learn how to use telemedicine service. | 3.64 | 0.9727 | Great extent |
| I find it simple to navigate electronic communications in telemedicine service. | 3.59 | 0.9827 | Great extent |
| I find that telemedicine is easy to use due to its user-friendly interface. | 3.65 | 0.9637 | Great extent |
| I find that interacting with the system is pleasant and comfortable. | 3.82 | 0.9296 | Great extent |
| Overall Mean | 3.67 | 0.8291 | Great extent |

| ITEM | | | |
|------|--|--|--|
| | | | |

| C. PERCEIVED USEFULNESS | Mean | SD | Description |
|---|-------------|---------------|---------------------|
| I can understand and manage my health on time due to telemedicine services. | 3.98 | 0.7966 | Great extent |
| I think telemedicine provides me with enough data about my health. | 3.97 | 0.8337 | Great extent |
| Telemedicine would allow tasks to be accomplished more quickly than traditional care. | 4.07 | 0.8517 | Great extent |
| Telemedicine makes it easier for me to ask for medical attention from doctors. | 4.08 | 0.8349 | Great extent |
| I think telemedicine can aid in the management of my condition. | 3.97 | 0.7623 | Great extent |
| I think telemedicine helped me conserve time from traveling to a hospital or specialist clinic. | 4.30 | 0.7745 | Great extent |
| Overall Mean | 4.06 | 0.6175 | Great extent |

Legend: 1.0-1.5 = Very Low Extent; 1.51-2.50 = Low Extent; 2.51-3.50 = Moderate Extent;

3.51-4.50 = Great Extent; 4.51-5.00 = Very Great Extent

The findings in table 3.3 demonstrated that hypertensive patients had a high degree (to a large extent) of tolerance for telemedicine. The analysis revealed that the mean value for attitudes was 3.97, the mean value for perceived ease of use was 3.67, and the mean value for usefulness was 4.06, respectively. This indicates that patients held a favorable outlook on telemedicine and believed it was an essential component of healthcare delivery. As a result, appropriate hospital training programs must be arranged for all pharmacists, as this will facilitate the usage of telemedicine in the future. Patients also need to participate in additional education and awareness programs.

3.3.3 Statistical analysis

The researchers used chi-square to analyze the data. It aimed to evaluate whether or not there is a significant correlation between the demographic profile of patients and their level of openness to receiving medical care via telemedicine.

TABLE 3.4

Testing the Significant Relationship between the Demographic Profile and the Level of Acceptability of Telemedicine Services

| Test Variables | | X ² | P value | Remarks* |
|--------------------------------|-----------------------|----------------|---------|-----------------|
| Age | Attitudes | 110.208 | 0.006 | Significant |
| | Perceived Ease of Use | 145.635 | 0.000 | Significant |
| | Perceived Usefulness | 80.070 | 0.241 | Not significant |
| Gender | Attitudes | 31.145 | 0.777 | Not significant |
| | Perceived Ease of Use | 46.794 | 0.282 | Not significant |
| | Perceived Usefulness | 32.193 | 0.650 | Not significant |
| Highest Educational attainment | Attitudes | 112.856 | 0.004 | Significant |
| | Perceived Ease of Use | 77.009 | 0.693 | Not significant |
| | Perceived Usefulness | 79.206 | 0.262 | Not significant |
| | Attitudes | 106.983 | 0.189 | Not significant |

| | | | | |
|-------------------------------|-----------------------|---------|-------|-----------------|
| Economic Status/Annual Income | Perceived Ease of Use | 117.773 | 0.186 | Not significant |
| | Perceived Usefulness | 80.927 | 0.742 | Not significant |

*Calculation was performed at a 0.05 level of significance

According to the statistical analysis findings, the degree of attitudes and acceptance of telemedicine in terms of perceived usage can be considerably influenced ($p < 0.05$) by the age of patients. In a related vein, the level of education that patients have attained was discovered to be a significant ($p < 0.05$) predictive variable on the level of attitudes that patients have about telemedicine. Moreover, there is no significant relationship between the level of education and the level of acceptability of telemedicine in terms of perceived ease of use and perceived usefulness. Furthermore, there is no significant relationship between gender, economic status, and the level of acceptability of telemedicine services regarding attitude, perceived ease of use, and perceived usefulness.

3.3 Discussion

This study aimed to determine the level of acceptability of hypertensive patients to telemedicine services and the relationship between the demographic profile and this level of acceptability in terms of attitude, perceived ease of use, and perceived usefulness. With this, in terms of the demographic profiles, the data showed that most hypertensive patients were 30-39 years old and 40-49 years old and were college graduates with an annual income of P140,280.

The findings in Table 3.3 demonstrated that hypertension patients had a high degree (to a large extent) of tolerance for telemedicine. This indicates that patients held a favorable outlook on telemedicine and believed it was an essential component of healthcare delivery. Moreover, a study showed that most middle-aged respondents had a positive attitude toward telemedicine services in their research. Thus, the respondents have a favorable evaluation of telemedicine acceptance. Also, the theoretical framework of this study, called the Theory of Planned Behavior, implies that attitude is measured by how much one likes or dislikes the technology under investigation. As projected, attitudes towards a healthcare information system have an essential role in their acceptance behavior. Concerning the results, most respondents showed a positive attitude towards telemedicine [16].

Regarding perceived ease of use and perceived usefulness, a reference study stated that patients and physicians believe that ease of use and effectiveness of technology was based on its potential to facilitate remote patient-provider connections since being available and accessible was seen as an essential aspect of healthcare. Thus, patients and physicians believe telemedicine services will benefit only if they deliver quicker health services, lower medical exam costs, greater documentation, and shorter wait times. However, according to other related studies, barriers to adoption cited by providers included the need for physical exams and a lack of technological literacy. Since physicians must be driven to put the telemedicine service into practice and enjoy its benefits, an underutilized telemedicine service will not be successful. Moreover, one of the famous models used in technology acceptance and stated in the theoretical framework of this study is the technology acceptance model in which users come to accept the use of technology [17].

Regarding Table 3.4, specifically in the demographic profile age, the results indicate a significant relationship between age and level of acceptability in terms of attitude. Based on the data gathered, middle-aged hypertensive patients have a positive attitude towards using the system when it has been proven to be helpful via practice and vice versa. These findings were consistent with the research entitled "User Acceptance Level of and Attitudes towards Telemedicine in the United Arab Emirates," which indicated that this age group has a positive attitude towards utilizing telemedicine services when patients perceive the system as useful, which means that attitude is correlated with perceived usefulness [18]. However, in this study, attitude is not correlated with perceived usefulness; age and perceived usefulness have no significant relationship. Thus, the supporting data only applies to the relationship between age and the parameter attitude.

This study's results also show a significant relationship between the age of the hypertensive patients and the perceived ease of use of Telemedicine services. The respondents' responses indicate that this age group positively correlates with perceived ease of use. The respondents agreed that gaining access to telemedicine services is simple and using telemedicine services and navigating electronic communications is simple to understand. The respondents also agreed that its user-friendly interface makes it easy and comfortable to use. Furthermore, a study about the perception of middle-aged patients and their intention to use telemedicine concluded that there is a positive relationship between the perception of the patients and the perceived ease of use.

On the demographic profile gender, the results show no significant relationship between gender and the level of acceptability of hypertensive patients to telemedicine services in terms of attitude, perceived ease of use, and perceived usefulness. This is to the literature entitled "The Influence of Gender on Attitudes, Perceptions, and Used of Technology," which revealed that gender differences in attitudes, perceptions, and uses of computers were not significant [19]. Another study analyzing the influence of gender in terms of willingness to use telemedicine services among healthcare students, with 430 respondents (40% men and 60% women), revealed that gender had no impact on the healthcare students' desire to use telemedicine. Moreover, the influence of gender on perception was analyzed, and it showed no significant difference in the healthcare students' perception of telemedicine [20]. On the contrary, these findings are inconsistent with past qualitative studies on the difference between how males and females approach technology. However, these studies were not included within the minimum date of publications to be considered valid to be cited, and so the proponents of the researchers would like to recommend the study to be applied in qualitative research.

Moreover, the data showed that the level of education does not correlate with the level of acceptability regarding perceived ease of use and perceived usefulness of telemedicine services. According to a related study, despite solid relationships, educational attainment does not influence the understanding of the patients in terms of basic health information [21]. Therefore, there is no significant relationship between educational attainment and the level of acceptability regarding perceived ease of use and perceived usefulness of telemedicine services. However, based on the data gathered, there is a significant relationship between educational attainment and the level of acceptability in terms of attitude towards telemedicine service. This indicates that educational attainment influences their attitude towards using telemedicine services. The results also showed a positive relationship between educational attainment and the respondents' attitude towards telemedicine services. In a study entitled "The Influence of Education on Attitudes toward Affirmative Action: The Role of the Policy's Strength," education frequently leads to favorable attitudes and eventually affirmative actions. For example, educated people have more positive attitudes toward affirmative action when administered under similar qualifications [22].

The economic status result showed no relationship with the level of acceptability of telemedicine in terms of attitude, perceived ease of use, and perceived usefulness. These findings contradict another related study wherein socioeconomic status has a significant relationship between technology use and technology acceptance in which perceived ease of use and perceived usefulness is associated with technology acceptance [23]. Moreover, a reference study also stated that socioeconomic status/income directly influences the attitude of internet users when looking for health-related information and that higher income is associated with increased online health information [24].

4. Conclusion and Recommendation

4.1 Conclusion

The importance of telemedicine services was highlighted particularly during this time of the pandemic as lowering the infection rates of the virus has affected the people's freedom to go about anywhere they want. This is extremely true and serious with regards to hospital consultations because as much as people want to get check-ups or if there are emergencies that would suddenly occur, the thought of getting infected with COVID-19 and getting isolated without seeing your family up close for who knows how long is also terrifying. Thus, this study aimed to determine the level of acceptability of telemedicine services in Davao City, choosing hypertensive patients as the respondents. This is to investigate if people indeed think that the idea of using telemedicine during the COVID-19 pandemic is effective and beneficial.

The following conclusions were drawn based on the results of the study. First, the Female demographic has the highest number of participants than males. Most of the respondents were 30-39 years old and 40-49 years old. Moreover, 44.3 percent or the majority of hypertensive patients were college graduates with annual earnings of less than P140, 280 (51. %). Second, people viewed telemedicine favorably and regarded it as an essential component of healthcare delivery. Finally, there is no significant relationship between gender, economic status, and the level of acceptability in terms of Attitude, Perceived Ease of Use, and Perceived Usefulness. Consequently, there is a significant relationship between age and the level of acceptability in terms of attitude and perceived ease of use as well as educational attainment and attitude.

Based on the findings above, the null hypothesis stating that there is no significant relationship between demographic profile and acceptability of telemedicine services in terms of attitude, perceived ease of use, and perceived usefulness should be rejected. This is because although most demographics showed no significant relationship with the parameters, the demographic age showed a significant relationship with attitude and perceived ease of use, and the demographic educational attainment was revealed to have a significant relationship with attitude. In essence, the age of patients has a significant influence ($p < 0.05$) on the degree of attitudes and acceptance of telemedicine in terms of perceived utilization. In a similar vein, the degree of education achieved by patients was discovered to be a significant ($p < 0.05$) predictor variable on the level of attitudes about telemedicine held by patients.

4.2 Recommendations

The study aimed to determine the level of acceptability of telemedicine among hypertensive patients of Davao City. In order to achieve this, the researchers utilized an adapted survey questionnaire as a primary tool in gathering and collecting data. To the people or institutions who would want to pursue this study into a broader scope, the researchers recommend the following: conduct a research study with healthcare providers as a respondent to maximize or improve the usage of telemedicine in the Philippines, researchers also recommend that it can be applied in a qualitative study to determine their reasons for accepting telemedicine services, and based on the study's results, the researchers suggest appropriate hospital training programs are arranged for all pharmacists, as this will facilitate the usage of telemedicine in the future.

4.3 Conflict of Interest

The proponents of the research have no conflict of interest.

References

1. Everything you should know about the coronavirus pandemic. Pharm J [Internet]. 2021 [cited 2022 Jan 4]; Available from: <https://pharmaceutical-journal.com/article/feature/everything-you-should-know-about-the-coronavirus-outbreak>
2. Boxer, R. (2015). Telemedicine in a Global Context. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5344153/> / [Accessed October 23, 2021].

3. Portnoy, J., Waller, M., & Elliot, T. (2020). Telemedicine in the Era of COVID-19. [https://www.jaci-inpractice.org/article/S2213-2198\(20\)30249-X/fulltext](https://www.jaci-inpractice.org/article/S2213-2198(20)30249-X/fulltext) [Accessed October 23, 2021].
4. Lucero-Orillaza, H. E. (2021). Teledermatology: The New Normal? *Acta Medica Philippina*, 55(5). <https://doi.org/10.47895/amp.v55i5.4024>
5. Department of Science and Technology (2018). Telemedicine Training for SPMC Doctors. Retrieved from: <https://region11.dost.gov.ph/484-telemedicine-training-for-spmc-doctors> [Accessed October 23, 2021].
6. administrator. (2020, June 15). Mayor Sara grateful for doctors behind ‘Tawag kay Doc.’ City Government of Davao. <https://www.davaocity.gov.ph/health/mayor-sara-grateful-for-doctors-behind-tawag-kay-doc/>
7. Galiero, R., Pafundi, P. C., Nevola, R., Rinaldi, L., Acierno, C., Caturano, A., Salvatore, T., Adinolfi, L. E., Costagliola, C., & Sasso, F. C. (2020). The importance of telemedicine during COVID-19 pandemic: A focus on diabetic retinopathy. *Journal of Diabetes Research*, 2020, 9036847. <https://doi.org/10.1155/2020/9036847>
8. Valmi S., Martha D., Isabel A., Costa M. (2007) An overview of quantitative design relevant to nursing: Part 1: quantitative research design. Retrieved from: <https://www.scielo.br/j/rlae/a/7zMf8XypC67vGPrXVrVFGdx/?lang=en>
9. World Population Review (2021). Davao City Population 2021. Retrieved from: <https://worldpopulationreview.com/world-cities/davao-city-population>
10. PhilAtlas (2021). Davao City. Retrieved from: <https://www.philatlas.com/mindanao/r11/davao-city.html>
11. National Economic and Development Authority (2021). Davao City. Retrieved from: <https://nro11.neda.gov.ph/davao-region/davao-city/>
12. Lin Z. The Overall Perception of Telemedicine and Intention to Use Telemedicine Services: A comparison between frequent travelers and non frequent travelers [Internet]. Cornell University Library; 2017 [cited 2022 Jan 11]. Available from: <https://ecommons.cornell.edu/handle/1813/56813>
13. Ramírez-Correa P, Ramírez-Rivas C, Alfaro-Pérez J, Melo-Mariano A. Telemedicine acceptance during the COVID-19 pandemic: An empirical example of robust consistent partial least squares path modeling. *Symmetry (Basel)* [Internet]. 2020;12(10):1593. Available from: <http://dx.doi.org/10.3390/sym12101593>
14. (N.d.). Cdc.Gov. Retrieved December 1, 2021, from <https://www.cdc.gov/nchs/products/databriefs/db289.html>
15. Albert et al. (2018). Computations from Microdata of the Family INcome and Expenditure Survey (FIES). PSA. Retrieved from: <https://psa.gov.ph/content/family-income-and-expenditure-survey-fies-0>
16. Naik, N., Ibrahim, S., Sircar, S., Patil, V., Hameed, B. M. Z., Rai, B. P., Chłosta, P., & Somani, B. K. (2021). Attitudes and perceptions of outpatients towards adoption of telemedicine in healthcare during COVID-19 pandemic. *Irish Journal of Medical Science*. <https://doi.org/10.1007/s11845-021-02729-6>
17. Danielle L. Terry & Shirley P. Buntoro (2021). Perceived Usefulness of Telehealth Among Rural Medical Providers: Barriers to Use and Associations with Provider Confidence. Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/34109271/>
18. Abdool, S., Abdallah, S., Akhlaq, S., & Razzak, H. A. (2021). User Acceptance Level of and Attitudes towards Telemedicine in the United Arab Emirates: A quantitative study: A quantitative study. *Sultan Qaboos University Medical Journal*, 21(2), e203–e209. <https://doi.org/10.18295/squmj.2021.21.02.008>
19. Bain, C. D., & Rice, M. L. (2006). The influence of gender on attitudes, perceptions, and uses of technology. *Journal of Research on Technology in Education*, 39(2), 119–132. <https://doi.org/10.1080/15391523.2006.10782476>
20. Malhotra, P., Ramachandran, A., Chauhan, R., Soni, D., & Garg, N. (2020). Assessment of knowledge, perception, and willingness of using telemedicine among medical and allied healthcare students studying in private institutions. *Telehealth and Medicine Today*. <https://doi.org/10.30953/tmt.v5.228>
21. Van der Heide, I., Wang, J., Droomers, M., Spreeuwenberg, P., Rademakers, J., & Uiters, E. (2013). The relationship between health, education, and health literacy: results from the Dutch Adult Literacy and Life Skills Survey. *Journal of health communication*, 18 Suppl 1(Suppl 1), 172–184.
22. Faniko, K., Lorenzi-Cioldi, F., Buschini, F., & Chatard, A. (2012). The influence of education on attitudes toward affirmative action: The role of the policy’s strength: Education and affirmative action. *Journal of Applied Social Psychology*, 42(2), 387–413. <https://doi.org/10.1111/j.1559-1816.2011.00892.x>
23. Nodeh, H., & Shahini, A. (2021). *The relationship between socioeconomic status, technology acceptance, and technology use among Iranian EFL teachers*. *Jhumanities.Net*. https://www.jhumanities.net/article_135023_6c12db400cbbdf3771cfd8b85c6107d9c.pdf

-
24. Kartiwi, M., Surya Gunawan, T., Ab Rahman, J., & Kasirye, F. (2020). A conceptual paper on the influence of social-economic status on attitude towards online health information seeking behavior: A Malaysian context. *2020 8th International Conference on Cyber and IT Service Management (CITSM)*, 1-5.