

Impact of service effectiveness and telemedicine use on patient satisfaction using telemedicine X hospital, Semarang City in Covid-19 pandemic

Hubungan antara efektivitas layanan dan penggunaan telemedicine terhadap kepuasan pasien pengguna telemedicine Rumah Sakit X Kota Semarang di masa Covid-19

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Poltekkes Kemenkes Aceh

Nadiya Arawinda Andar^{1*}, Yuliani Setyaningsih², Luky Dwiantoro³

Abstract

Background: Since the outbreak of Corona Virus Disease (COVID-19), face-to-face services were initially limited, and communication between doctors and patients during a pandemic was less effective, so health services changed. Telemedicine, which was initially only communication between hospital departments or between hospitals, has become all kinds of communication, such as patient-doctor, patient-nurse, patient-pharmacy and so on, using Telemedicine. The use of telemedicine services is one of the strategies to prevent the spread of COVID-19 because Telemedicine provides health services using electronic communication technology. Patients and medical personnel do not need to meet in person in one place but still communicate through the application. Patient satisfaction in using Telemedicine is a crucial and vital indicator that needs to be considered to improve the quality of telemedicine medical services.

Objectives: To analyze the relationship between the effectiveness of services and the use of Telemedicine on patient satisfaction using Telemedicine.

Methods: Quantitative with a retrospective descriptive research design. Data was collected using an online questionnaire for 350 patients at Hospital X in Semarang City. Patients who met the inclusion and exclusion criteria were taken by purposive sampling. The analysis of this study included univariate, bivariate, and multivariate analyses. The chi-square test and logistic regression were used in this study.

Results: Regarding the effectiveness of the service and use of Telemedicine, most respondents rated the service's effectiveness as good, 139 (92,1%) of respondents, and the majority of respondents considered the use of Telemedicine to support as many as 136 (90,1%) of respondents. Patient satisfaction showed that most respondents were satisfied, as many as 140 (92,7%) respondents. The relationship between service effectiveness and patient satisfaction demonstrates that the service effectiveness variable is significantly related to patient satisfaction (p -value = 0,006 \leq Level of Significant = 0,05). The relationship between telemedicine use and patient satisfaction shows that telemedicine use has a significant relationship with patient satisfaction (p -value = 0,014 \leq Level of Significant = 0,05).

Conclusion: most of the respondents rated the effectiveness of the service as good, most of the respondents supported the use of Telemedicine, most of the respondents were satisfied, and the variable of service effectiveness was significantly related to patient satisfaction.

Keywords

Service Effectiveness, Telemedicine, Patient Satisfaction

Abstrak

Latar belakang: Telemedicine yang awalnya hanya komunikasi untuk antar bagian rumah sakit atau anatar rumah sakit saja menjadi segala komunikasi seperti pasien-dokter, pasien-perawat, pasien-apotik dan lain sebagainya, menjadi menggunakan telemedicine.

Tujuan: Menganalisis hubungan antara efektivitas layanan dan penggunaan telemedicine terhadap kepuasan pasien pengguna telemedicine.

¹ Public health faculty, Diponegoro University, Central Java, Indonesia. E-mail: nadiyaara@gmail.com

² Medical Faculty, Diponegoro University, Central Java, Indonesia. E-mail: yulianifkm@live.undip.com,

³ Medical Faculty, Diponegoro University, Central Java, Indonesia. E-mail: lukydwiantoro@lecturer.undip.ac.id

Penulis Koresponding :

Nadiya Arawinda Andar : Public health faculty, Diponegoro University, Central Java, Indonesia. E-mail: nadiyaara@gmail.com

Metode: Kuantitatif dengan desain penelitian deskriptif retrospektif. Pengumpulan data dilakukan menggunakan kuisioner online kepada pasien sebanyak 350 orang. Analisis penelitian ini antara lain adalah analisis univariat, bivariate, dan multivariat.

Hasil: Efektivitas layanan dan penggunaan telemedicine adalah sebagian besar responden menilai efektivitas layanan baik sebanyak 139 (92,1%) responden, sebagian besar responden menilai penggunaan telemedicine mendukung sebanyak 136 (90,1%) responden. Kepuasan pasien menunjukkan bahwa sebagian besar responden merasa puas sebanyak 140 (92,7%) responden. Hubungan efektivitas layanan dengan kepuasan pasien menunjukkan bahwa variabel efektivitas layanan berhubungan signifikan dengan kepuasan pasien ($p\text{-value} = 0,006 \leq \text{Level of Significant} = 0,05$). Hubungan penggunaan telemedicine dengan kepuasan pasien menunjukkan bahwa Variabel penggunaan telemedicine berhubungan signifikan dengan kepuasan pasien ($p\text{-value} = 0,014 \leq \text{Level of Significant} = 0,05$).

Kesimpulan: sebagian besar responden menilai efektivitas layanan baik, sebagian besar responden mendukung penggunaan telemedicine, sebagian besar responden merasa puas, dan variabel efektivitas layanan berhubungan signifikan dengan kepuasan pasien.

Kata Kunci

Efektivitas Layanan, Telemedicine, Kepuasan Pasien

Introduction

Telemedicine, which initially was only communication between hospital departments or between hospitals, to all communications such as patient-doctor, patient-nurse, patient-pharmacy, and so on, using Telemedicine (O'Brien and McNicholas, 2020) (Wiweko et al., 2021) (Prakash, 2010). Telemedicine technology is growing in many ways. New methods in the delivery of health services need to be implemented before it is vital to investigate the quality, safety, and impact of these innovations so that failures are not found in treatment and reduce unexpected events. The application of Telemedicine is felt to be more satisfying than face-to-face services in general (O'Brien & McNicholas, 2020; Adnan, 2021; Mair & Whitten, 2000; Sari & Wirman, 2021; Wiweko et al., 2021).

Patient satisfaction in Telemedicine is a vital and essential indicator that must be considered to improve the quality of telemedicine medical services. Healthcare providers need to realize that the patient is the primary beneficiary of the healthcare system. Patient satisfaction using Telemedicine in a hospital depends on how services by health workers at the hospital are provided. However, patient satisfaction using Telemedicine has not reached the standard because the services usually offered do not follow the patient's wishes regarding telemedicine services (Prakash, 2010).

National patient satisfaction standards have been established through the 2016 Republic of Indonesia Ministry of Health Regulation concerning Minimum Service Standards for patient satisfaction

above 95% (Kementrian Kesehatan Republik Indonesia, 2010). That is, if a health service has a patient satisfaction level of less than 95%, it is considered that the services provided are not of good quality. Service quality is crucial for patient satisfaction (Irmawati & Kurniasari, 2012). If medical treatment is less than 95% patient satisfaction, the medical care is below minimum standards or considered poor quality. A low patient satisfaction rate will affect the development of a hospital. Patients dissatisfied with the medical services they receive decide to move to another hospital that can provide services that, according to patients, have better benefits. According to Garcia and Adalakun, the patient's decision to seek health care is influenced by the quality of service from the hospital. Lack of patient satisfaction can cause a loss of patient trust in the hospital. The achievement of patient satisfaction with care services is related to various factors, namely, public services, physical form, guarantees, care, reliability, and patient characteristics. In addition, the five factors that influence patient satisfaction are responsiveness, reliability, assurance, empathy, and tangibles. Based on these factors, the patient can judge how well the treatment is received and whether it follows their wishes (Sathiyaseelan et al., 2015; Essiam, 2013).

The effectiveness of public services is the government's efforts to fulfill all citizens' basic needs and rights in public service providers' products, services, and management. Therefore, knowledge about patient satisfaction will be essential in understanding experience and evaluating service effectiveness through survey research by seeking direct feedback from patients. In addition, knowledge about patient

characteristics, a person's characteristics, or the uniqueness of a person that distinguishes them from others is equally important. Knowledge of patient characteristics that affect patient satisfaction is mostly age, gender, education, and occupation. Age explained that expectations tend to decrease and satisfaction tends to increase with age.

Based on the background described, this research problem aims to see the effectiveness and characteristics of patients in patient satisfaction with telemedicine services at General Hospital X Semarang City during the COVID-19 pandemic in Indonesia.

Method

The research approach used in this research is quantitative, which aims to describe or describe a symptom, an event which is an actual problem 60. The research approach is descriptive retrospective by collecting categorical data and analyzing it using a questionnaire. This research will use a purposive sampling technique (purposive sampling). In this study, the research population used was 350 people. The inclusion criteria in this study were having used Telemedicine at X General Hospital Semarang City, being at least 18 years old, and being able to use telephone/gadget/smartphone devices. The exclusion criteria in this study were patients who used telemedicine services at General Hospital X Semarang City after March 2022 and did not fill out informed consent.

Patient satisfaction is measured using an instrument that adopts a questionnaire from Gustke et al. in the form of a respondent's emotional evaluation response due to the fulfillment of desires and expectations in using or receiving a health service where each assessment item consists of 10 (ten) questions and where Each assessment has a 1-4 answer range using a Likert scale.

Service Effectiveness is measured using the measurement instrument by adopting a questionnaire from Parmanto et al., which has 21 (twenty-one) questions. The questions are divided into six aspects: Usefulness (Usability), Ease of Use, and Learnability (Ease of Use and Learning Ability), Interface Quality, Interaction Quality, Reliability, and Satisfaction and Future Use. Each item of assessment uses a Likert scale. The use of telemedicine services in this study was measured by adopting a

questionnaire from Sincavage, which consisted of 10 statements. Each assessment item had an answer using a Guttman scale with yes or no answer options. All questionnaires were made in Indonesian and tested for validity and reliability, where valid and reliable results were obtained, service effectiveness was assessed with 21 question items, service use with 10 question items, and patient satisfaction with 10 question items. Patient demographic data such as age, gender, education level, and marriage, income, BPJS (PBI) participants were also identified in this study. Data were collected in September and November 2022.

SPSS version 23 was used in this study to analyze data. Data is reported in frequency and percentage. The median value is used as the cut-off point to categorize patient satisfaction, service effectiveness, and use of Telemedicine. Patient demographic data such as age, gender, education level, and marriage, income, BPJS (PBI) participants were also identified in this study. Data were collected in September and November 2022. SPSS version 23 was used in this study to analyze data. Data is reported in frequency and percentage. The median value is used as the cut-off point to categorize patient satisfaction, service effectiveness, and use of Telemedicine. Patient demographic data such as age, gender, education level, and marriage, income, BPJS (PBI) participants were also identified in this study. Data were collected in September and November 2022. SPSS version 23 was used in this study to analyze data. Data is reported in frequency and percentage. The median value is used as the cut-off point to categorize patient satisfaction, service effectiveness, and use of Telemedicine.

This study's data analysis was univariate, bivariate, and multivariate analysis. Univariate analysis is done by analyzing the variables from the characteristics of the respondents and the results of measuring the effectiveness of the service, the use of Telemedicine, and the patient's level of satisfaction with telemedicine services at General Hospital X Semarang City during the pandemic. The bivariate analysis was used to analyze the categorical scale on the dependent variable (patient satisfaction) and the independent variable (service effectiveness and use of Telemedicine), so the Chi-Square test was used. However, if the chi-square does not meet the requirements, then an alternative test will be used using the Fisher Exact test. Meanwhile, multivariate analysis is carried out to determine the effect between the independent and dependent variables.

This proposal was approved by the ethics committee of the Faculty of Public Health, Diponegoro University, with number 340/EA/KEPK-FKM/2022, and has followed the Helsinki declassification principle. All subjects had received an explanation and signed informed consent before participating in the study.

Result and Discussion

Based on the results of research that has been conducted on 151 respondents. Based on Table 1, it can be seen that most of the respondents in this study were female, 84 (55,6%). Most respondents aged 26-35 years, 66 (43,7%) respondents, most respondents with PT education, 126 (83,4%) of respondents, most respondents worked as private employees as many as 68 (45,0%) respondents, most respondents with single marital status as many as 72 (47,7%) respondents, most respondents income Rp.2.000.000-Rp.10.000.000 as many as 74 (49,0%) respondents, and most of the BPJS (PBI) participant respondents were 123 (81,5%) respondents.

Table 1. Response characteristics

Variable	f	%
Age		
20 – 25 years	31	20,5
26 – 35 years	66	43,7
36 – 45 years	24	15,9
> 45 years	30	19,9
Gender		
Man	84	55,6
Woman	67	44,4
Education		
Graduated from elementary school	3	2,0
Middle school graduate	3	2,0
Graduated from high school	19	12,6
Graduated PT	126	83,4
Work		
Doesn't work	13	8,6
Housewife	5	3,3
Student	28	18,5
Government employees	14	9,3
Private employees	68	45,0
Daily laborers/workers	8	5,3
Etc	15	9,9
Marital status		

Variable	f	%
Bachelor	72	47,7
Marry	71	47,0
Divorced on/off	8	5,3
Income		
< Rp, 500,000	22	14,6
Rp, 500,000 – Rp, 2,000,000	50	33,1
Rp, 2,000,000 – Rp, 10,000,000	74	49,0
> Rp, 10,000,000	5	3,3
Insurance		
BPJS (PBI)	123	81,5
Non-BPJS	28	18,5

Most were female, with 84 (55,6%) respondents. This shows that in terms of the respondents' gender at Dr. General Hospital, Kariadi Semarang City, primarily women who successfully participated in this study. Most of the respondents aged 26-35 years were 66 (43,7%) respondents. This shows that in terms of the age of the respondents at Dr. General Hospital, Most of the Kariadi in Semarang City are from early to middle adulthood. A person's age can influence a person's information and experience, which in this study is about the use of Telemedicine. Someone who gets more information will add to his knowledge about the broader use of Telemedicine while experiencing it.

Most of the respondents with PT education were 126 (83,4%) respondents, This shows that in terms of the respondents' education at Dr, General Hospital, Most of the Kariadi in Semarang City has a high level of education, People with higher levels of education are more proactive in their approach to prevention, are more knowledgeable about health issues, and have good health, Respondents who have secondary to tertiary education and work in the formal sector have better access to information about household environmental health, which can impact the effectiveness of their services, Respondents who have secondary to higher education are more active in determining the use of Telemedicine and are more independent in taking action in using Telemedicine, Meanwhile, the respondents' low education has an impact on their common knowledge about the use of Telemedicine, The level of education, namely efforts to provide knowledge about the use of Telemedicine, resulted in increased positive behavior changes.

Education is all planned efforts to influence other people, whether individuals, groups, or communities through activities to provide and increase their knowledge about the use of Telemedicine so that they can do what educators expect, education can affect a person's behavior, Generally, the higher a person's education, the easier it is to receive information, resulting in increased positive behavior change, education is all planned efforts to influence other people, whether individuals, groups, or communities through activities to provide and increase their knowledge about the use of Telemedicine so that they can do what educators expect, education can affect a person's behavior, Generally, the higher a person's education, the easier it is to receive information, resulting in increased positive behavior change, education is all planned efforts to influence other people, whether individuals, groups, or communities through activities to provide and increase their knowledge about the use of Telemedicine so that they can do what is expected of educators, education can affect a person's behavior, Generally, the higher a person's education, the easier it is to receive information, education can affect a person's behavior, Generally, the higher a person's education, the easier it is to receive news, education can affect a person's behavior, Generally, the higher a person's education, the easier it is to receive information.

Most of the respondents worked as private employees, as many as 68 (45,0%) respondents, and most respondents had an income of Rp 2,000,000-Rp 10,000,000, as many as 74 (49,0%) respondents. This shows that regarding the respondents' work at Dr. General Hospital, Kariadi Semarang City mainly employs private companies whose income is around the Semarang UMR. A respondent who works will earn income to gain more and increase his knowledge about using informal Telemedicine. In addition, the personal experience of a respondent who works can be used to understand Telemedicine's use by repeating the knowledge that has been achieved in solving health problems faced in the past.

Most respondents with single marital status were 72 (47,7%) respondents, This shows that in terms of the marriage status of the respondents at Dr, General Hospital, Kariadi Semarang City is mostly unmarried, There are

four types of marital status: single, married, divorced, and divorced, Unmarried refers to someone who is not married or not yet married, Most of the BPJS (PBI) participant respondents were 123 (81,5%) respondents, This shows that in terms of insurance participation, the respondents at Dr, General Hospital, Most Kariadi Semarang City are BPJS (PBI) participants, BPJS (PBI) Health participants can also be considered customers of health services, Therefore, discussing BPJS (PBI) Health participants requires understanding consumers, especially consumers of health services, BPJS (PBI) participants are those who receive health insurance premium assistance (PBI): the poor and unable, which are regulated in the provisions of the Act, Conversely, non-BPJS participants are not entitled to health insurance contributions (non-PBI) assistance.

Table 2. Service effectiveness, use of telemedicine, respondent patient satisfaction on the use of telemedicine in the public hospital X Semarang City

	f	%
Service Effectiveness		
Good	139	92,1
Not good	12	7,9
Use of Telemedicine		
Support	136	90,1
Does not support	15	9,9
Respondent Patient Satisfaction		
Satisfied	140	92,7
Not satisfied	11	7,3

Based on Table 4, the results of calculations using the Fisher's Exact test obtained p-value = $0,006 \leq \alpha = 0,05$ (the p-value is smaller or equal to $\alpha = 0,05$) it can be concluded that service effectiveness on patient satisfaction has a significant relationship with patient satisfaction prevalence of 9,43 with a 95% confidence interval value of 2,28 – 39,04, This means a significant relationship exists between service effectiveness and patient satisfaction, The relationship between service effectiveness and patient satisfaction is low ($r = 0,283$). It can further be interpreted that if the effectiveness of the service increases, then patient satisfaction will increase.

Table 3. Demographic data based on patient satisfaction

Variable	Patient Satisfaction				p-value
	Satisfied		Not satisfied		
	f	%	f	%	
Age					
20 – 25 years	28	90,3	3	9,7	0,926
26 – 35 years	62	93,9	4	6,1	
36 – 45 years	22	91,7	2	8,3	
> 45 years	28	93,3	2	6,7	
Gender					
Man	78	92,9	6	7,1	0,590
Woman	62	92,5	5	7,5	
Education					
Graduated from elementary school	3	100	0	0	0,001*
Middle school graduate	1	33,3	2	66,7	
Graduated from high school	18	94,7	1	5,3	
Graduated PT	118	93,7	8	6,3	
Work					
Doesn't work	12	92,3	1	7,7	0,134
Housewife	4	80	1	20	
Student	28	100	0	0	
Government employees	12	85,7	2	14,3	
Private employees	65	95,6	3	4,4	
Daily laborers/workers	6	75	2	25	
Etc	13	86,7	2	13,3	
Marital status					
Bachelor	68	94,4	4	5,6	0,440
Marry	64	90,1	7	9,9	
Divorced on/off	8	100	0	0	
Income					
< Rp, 500,000	18	81,8	4	18,2	0,189
Rp, 500,000 – Rp, 2,000,000	47	94	3	6	
Rp, 2,000,000 – Rp, 10,000,000	70	94,6	4	5,4	
> Rp, 10,000,000	5	100	0	0	
Insurance					
BPJS (PBI)	114	92,7	9	7,3	0,667
Non-BPJS (Non PBI)	26	92,9	2	7,1	

Table 4. The relationship between service effectiveness and patient satisfaction

Service Effectiveness	Patient Satisfaction				p	OR (95% CI)
	Satisfied		Dissatisfied			
	f	%	f	%		
Good	132	95,0	7	5,0	0,006*	9,43 (2,28 – 39,04)
Bad	8	66,7	4	33,3		

Most of the respondents rated the effectiveness of the service as good as 139 (92,1%) respondents. Most of the respondents ordered telemedicine support as many as 136 (90,1%) respondents. The results of this study are supported by Adinda (Adinda et al., 2020), where

the study results show that the level of service effectiveness is good. The use of Telemedicine is supportive. The results of this study are supported by Adnan & Pramaningtyas (2021), where the results of the study show that the level of service effectiveness and the use of Telemedicine is good.

The intensity of the use of Telemedicine in this study can be influenced by their knowledge and understanding of the use of Telemedicine, their level of education (the higher a person's education, the easier it is for the person to receive information related to knowledge), religious education, personal problems, influence by co-workers or their peers, data from the mass media (in conveying information as its primary task, the mass media also carries messages containing suggestions that can direct one's opinion), the environment around where one life (environment influences the process of entering knowledge, attitudes, and behavior regarding the use of Telemedicine in individuals who are in that environment.

This happens because there is reciprocal interaction (which will be responded to as knowledge, attitudes, and behavior by each individual) and the role of the family to guide and educate the respondent himself. Telemedicine functionality incorporates all aspects of the medical care process, including prevention, diagnosis, treatment, follow-up, and rehabilitation activities when consultation occurs between two or more physicians (often between a primary care physician and a specialist) and between a provider and a patient.

According to the American Academy of Neurology, there are three areas for measuring consulting quality in teleneurology, Each consultation must have technical data such as the name, location, and affiliation of the consultant; Consultation start and end times; Equipment used; The name and credentials of the hospital staff who assisted the teleconsultant; Time of dictation and transcription of consultations.

All of these data can be entered by the person assisting the teleconsultant, In therapeutic cases, a measure of quality is if the consultant does it himself or if the general practitioner measures the NIH stroke scale first, In consultations other than rtPA cases, the writing standards for consultations should be the same as for any consultation in private practice visits, Whereas in terms of diagnosis, it is usually done remotely by radiologists, pathologists, cardiologists, or other specialists who rely on transferred images, notes, and laboratory results, It should be noted that consultation and diagnosis are not mutually exclusive as both functions can occur simultaneously.

Moreover, as previously mentioned, the two applications incorporate all aspects of the medical treatment process. Consultation writing standards should be the same as for any consultation in a private practice visit. In contrast, diagnosis it is usually done remotely by radiologists, pathologists, cardiologists, or other specialists who rely on transferred images, notes, and laboratory results, It should be noted that consultation and diagnosis are not mutually exclusive as both functions can coincide. Moreover, as previously mentioned, the two applications incorporate all aspects of the medical treatment process. Consultation writing standards should be the same as for any consultation in a private practice visit.

Diagnosis is usually done remotely by radiologists, pathologists, cardiologists, or other specialists who rely on transferred images, notes, and laboratory results. It should be noted that consultation and diagnosis are not mutually exclusive, as both functions can coincide. Moreover, as previously mentioned, the two applications incorporate all aspects of the medical treatment process.

The results of this study are supported by Umiati et al., 2021 which shows that there is a relationship between service effectiveness and patient satisfaction. The significance of this relationship is that telemedicine services can change the classic face-to-face interaction between doctors and patients. Positively, this interaction means that patients can reach their doctor more easily, quickly, cheaply, and frequently. Patients can continue to consult their health condition with their doctor. However, the doctor's professional belief in the patient's clinical condition is limited, as described above. This change in interaction also confuses when a malpractice case arises (Nord et al., 2019).

Telemedicine has been shown to provide the value of palliative care to the most vulnerable. It is crucial in responding to COVID-19 to treat people with significant illness who must now practice physical distancing to prevent themselves from contracting the coronavirus. Telemedicine is more effective when used with planning, patience, and practice. Before COVID-19, Telemedicine was used to provide specialized palliative care to patients while they were at home. Patients who receive palliative care through Telemedicine are often pleased with the convenience and time savings. Telemedicine is a long-distance clinical telecommunication service that

uses information and communication technology to exchange medical information related to care matters such as diagnosis, treatment, and disease and injury prevention to improve patient health status. To measure the effectiveness of the quality of service using Telemedicine, the dimensions of quality of health services are used, which is a framework for examining and solving quality problems in terms of health services. If the patient is not satisfied, the

analysis is carried out on each dimension of the quality of health services. This is used to determine the characteristics of the quality of health services that have not been met. Then, the best treatment will be selected and continued by examining the health service standards used. Therefore, it is essential to measure the effectiveness of services using Telemedicine because it is closely related to patient satisfaction.

Table 5. The relationship between use of telemedicine and patient satisfaction at Dr Karia in Semarang City

Use of Telemedicine	Patient Satisfaction				p	OR (95% CI)
	Satisfied		Not satisfied			
	f	%	f	%		
Support	129	94,9	7	5,1	0,014*	6,70 (1,70 – 26,48)
Does not support	11	73,3	4	26,7		

Description: * Significant ($p < 0,05$)

Table 5 shows that most of the use of Telemedicine support and patients are satisfied by as many as 129 (85,43%) respondents. Based on the results of the calculation of the relationship test for the use of Telemedicine on patient satisfaction using the Fisher's Exact test. It obtained p -value = $0,014 \leq \alpha = 0,05$ (p -value is smaller or equal to $\alpha = 0,05$), so it can be concluded that the use of Telemedicine on Patient satisfaction has a significant relationship with a prevalence value of 6,70 with a 95% confidence interval value of 1,70 – 26,48, This means that there is a significant relationship between the use of telemedicine and patient satisfaction, The closeness of the relationship between the use of Telemedicine and patient satisfaction is low ($r = 0,240$). It can be further interpreted that if the use of telemedicine increases, then patient satisfaction will increase.

The results of this study are supported by Umiati et al. (2021), which shows a relationship between the use of telemedicine and patient satisfaction. The key to the successful use of Telemedicine can be reviewed through satisfaction

As in a review conducted by a study on expectations for implementing Telemedicine in Bangladesh, the experience of using the application and also the perceived satisfaction, whether felt directly or from the opinions of others, are the reasons people accept the use of services (Zobair et al., 2019). The use of Telemedicine can be evaluated in the form of questionnaires or interviews. This study used elements of the User Technology Acceptability Questionnaire to assess the satisfaction and acceptance of telemedicine users in various chronic disease patients (Dario et al., 2016). Satisfaction with the use of Telemedicine is based on five dimensions: privacy, discomfort, care personnel concerns, and satisfaction. Suppose the highest instrument is on privacy and inconvenience, care personnel attention, and satisfaction. In that case, This implies a high degree of acceptance of confidence regarding the security of the data being monitored, the impact of the equipment on the user, and confidence in the continuity and skills of the personnel (Dario et al., 2016).

Table 6. Logistic regression multivariate test results on patient satisfaction

Variable	p,s	OR	95% CI
Education	0,534	0,756	0,313 – 1,828
Work	0,248	1,268	0,848 – 1,898
Income	0,096	0,494	0,215 – 1,133
Use of Telemedicine	0,932	1,111	0,097 – 12,696
Service effectiveness	0,003*	9,222	2,147 – 39,623

* Significant ($p < 0,05$)

Based on the results of the logistic regression test calculations, taking into account the characteristics of the respondents that there is a relationship between effectiveness and patient satisfaction, the results of service effectiveness show a significant relationship to patient satisfaction with an OR value of 9,222 and a 95% confidence interval value of 2,147 - 39,623,

Conclusion

The conclusion of this study shows that most of the respondents rated the effectiveness of the service as good, most of the respondents supported the use of Telemedicine, most of the respondents were satisfied, and the variable of service effectiveness was significantly related to patient satisfaction.

Conflict of Interest

The writers state they have no personal interests that may have influenced their work.

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