The Relationship Between The Quality Of The Online Registration System And The Satisfaction Level Of Outpatient Patients

Pande Wayan Santhosa[1*], Ika Setya Purwanti[2], Putu Gede Subhaktiyasa[3]

[1*,2,3]Prodi Rekam Medis dan Informasi Kesehatan, STIKES Wira Medika Bali

Article Info	ABSTRACT
Keywords: Online registration system, Patient satisfaction, Outpatient care, Healthcare services.	The conventional patient registration system has evolved into an online platform utilizing information technology. However, the use of online registration systems still faces issues that affect patient satisfaction. Bangli General Hospital has implemented an Online Registration System (SIDOLI), but patient satisfaction with this system has not yet been evaluated. This study aims to determine the relationship between the quality of the online registration system and the satisfaction level of outpatient patients at Bangli General Hospital.This study uses a quantitative approach with a cross-sectional design. The research was conducted in April 2024 with a sample of 70 outpatients using the SIDOLI online registration system, determined through purposive sampling techniques. The results of the study show that 55.7% of respondents rated the quality of SIDOLI as good, 32.9% as adequate, and 11.4% as poor. The patient satisfaction level showed that 55.7% were satisfied, and 32.9% were dissatisfied. The chi-square test results indicate a significant relationship between the quality of the SIDOLI online system and outpatient satisfaction at Bangli General Hospital (p = 0.05), with a weak correlation (r = 0.279). Improving the quality of the online registration system tends to increase patient satisfaction, although this increase is relatively weak. The results of the study provide comprehensive insights into the development and evaluation of online systems in healthcare services.
	Corresponding Author: Pande Wayan Santhosa Prodi Rekam Medis dan Informasi Kesehatan, STIKES Wira Medika Bali santhosapande@gmail.com

INTRODUCTION

Patient satisfaction is derived from good and quality services as a result of healthcare performance. One form of patient satisfaction is the ease and speed of access to hospital healthcare services (Saputra et al., 2020). Customer satisfaction is greatly influenced by the various types of services received during different stages of healthcare (Yunita et al., 2023). Patient dissatisfaction obtained from the initial stage of service tends to create a negative perception of the service quality in subsequent stages. Satisfactory service will encourage patients to continue using the provided healthcare services. The conventional hospital outpatient registration system requires a long waiting time and queues, which lowers patient satisfaction (Primadhani et al., 2023). Therefore, an online patient registration system has been developed using information technology.

The Relationship Between The Quality Of The Online Registration System And The
Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al
1015 |P a g e

In the new normal era, the online registration system can provide benefits such as reducing waiting times, decreasing crowding, improving hospital service quality, and increasing patient satisfaction. According to research conducted by Rizany (2019), there is a significant difference in patient satisfaction between online and offline registration (p=0.0001), and shorter waiting times tend to increase patient satisfaction (Primadhani et al., 2023).

Currently, many services have been simplified through the use of online systems, one of which is online outpatient registration. Especially in the current era, online registration can reduce the risk of virus transmission due to long waiting times in hospitals and increase access and convenience for the public by using information technology in outpatient registration (Ardiansyah et al., 2021). However, in the use of online registration, it is also necessary to evaluate the system's reliability, flexibility, integration, accessibility, and response time to improve system quality (Widianto et al., 2023).

Bangli General Hospital has implemented SIDOLI (Online Registration System) as a change from the conventional system to an online registration system. However, so far, no study has been conducted to show the relationship between the online system and patient satisfaction. The researcher conducted an initial observation through interviews with 10 respondents who used the SIDOLI online registration application at Bangli General Hospital in November 2023. The observation results showed that 4 people (40%) were satisfied, and 6 people (60%) were dissatisfied with the implementation of SIDOLI. The majority of dissatisfaction reasons were due to frequent system troubles. Therefore, an evaluation of the implementation of the online registration system (SIDOLI) at Bangli General Hospital is needed to improve the quality of service to achieve patient satisfaction in healthcare services. This study aims to determine the relationship between the quality of the online registration system and outpatient satisfaction (a case study at Bangli General Hospital).

METHODS

This study uses a quantitative approach with a cross-sectional design. The research was conducted at Bangli General Hospital in April 2024, with a sample of 70 outpatients who used the online registration system (SIDOLI), selected through purposive sampling techniques. The study variables consist of the independent variable, which is the quality of the online registration system, and the dependent variable, which is the level of outpatient satisfaction. The data sources for the study are primary data, with data collection conducted using questionnaires filled out by respondents after completing the informed consent. The research data were statistically analyzed through univariate analysis to determine the frequency and percentage of each variable. Subsequently, the data were analyzed bivariately using Spearman's coefficient test to determine the relationship between the quality of the online registration system and the level of outpatient satisfaction.

The Relationship Between The Quality Of The Online Registration System And The
Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al
1016 |P a g e

RESULTS AND DISCUSSION

Univariate Analysis Result

This study used a sample of 70 people, with the criteria being outpatients who used the SIDOLI online registration system at Bangli General Hospital in April 2024. The characteristics of the respondents in this study can be seen in the following table.

Table 1. Characteristics of Respondents

Characteristics of Respondents	Frequency (f)	Percentage (%)
Gender		
Male	36	51.4
Female	34	48.6
Age of Respondents		
≤25	20	28.6
26-35	30	42.9
36-45	14	20.0
>45	6	8.6
Mother's Education		
Junior High School	6	8.6
Senior High School	43	61.4
Diploma	8	11.4
Bachelor's Degree	13	18.6
Total (N)	70	100%

Based on Table 1, it is evident that the respondents are predominantly male, accounting for 51.4%, and the majority are in the age group of 26-35 years, making up 42.9%. Most respondents have a high school education, representing 61.4%.

Table 2. Frequency Distribution of System Quality

Quality of SIDOLI Online System	Frequency	Percentage (%)
Good	39	55.7
Fairly Good	23	32.9
Not Good	8	11.4
Total	70	100%

Based on the research results in Table 2, it is shown that out of 70 respondents, 39 people (55.7%) rated the quality of the system as good, 23 people (32.9%) rated it as fairly good, and 8 people (11.4%) rated it as poor regarding the SIDOLI Online System at Bangli General Hospital.

Table 3. Frequency Distribution of Outpatient Satisfaction with the System

Outpatient Satisfaction	Frequency	Percentage (%)
Satisfied	39	55,7
Not Satisfied	23	32,9
Total	70	100%

The Relationship Between The Quality Of The Online Registration System And The Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al

1017 |P a g e

Table 3 shows that out of 70 respondents, 39 people (55.7%) expressed satisfaction, and 23 people (32.9%) expressed dissatisfaction with the SIDOLI Online System at Bangli General Hospital.

Bivariate Analysis Results

Table 4. The Relationship Between System Quality and Outpatient Satisfaction with the Online Registration System at Bangli General Hospital

Quality of SIDOLI Online System	Outpatient Satisfaction			p-value	Correlation Coefficient
	Satisfied	Not Satisfied	N(%)		
Good	27 (69.2%)	12 (30.8%)	39 (100%)		
Fairly Good	16 (69.6%)	7 (30.4%)	23 (100%)	0.020	0.279
Not Good	0 (0.0%)	8 (100.0%)	8 (100%)		
N(%)	43 (61.4%)	27 (38.6%)	70 (100%)		

Based on the results of this study, it is shown that 27 people (69.6%) rated the system quality as good and were satisfied with the SIDOLI online registration service at Bangli General Hospital, while 12 people (30.8%) rated the system quality as good but were dissatisfied with the service. Of those who rated the system quality as adequate, 16 people (69.6%) were satisfied with the SIDOLI online registration service, while 7 people (30.4%) rated the system quality as adequate but were dissatisfied with the service. All 8 people (100%) who rated the system quality as poor were dissatisfied with the SIDOLI online registration service at Bangli General Hospital.

The statistical test results show a p-value of 0.020, which is less than 0.05, indicating a significant relationship between the quality of the SIDOLI online system and outpatient satisfaction. The Spearman rank test results show a correlation coefficient of 0.279. This means that the correlation coefficient falls within the range of 0.21 to 0.40, indicating a "low/weak but definite" relationship between the quality of the SIDOLI online system and outpatient satisfaction at Bangli General Hospital.

The Relationship Between System Quality and Outpatient Satisfaction with the Online Registration System

This study measures the variable of outpatient satisfaction with the SIDOLI online registration system across dimensions: content, accuracy, format, ease of use, and timeliness. The results show that for the content component, nearly the majority of respondents (22.9%) agreed that the online registration facilitated outpatient registration. Content (information) is crucial because it involves inputting data that is then processed and reported as information (Aula Rumana et al., 2021). The completeness of the content in the online registration system is a factor that affects user satisfaction. When information about healthcare services is well communicated through the system, patients receive information according to their needs (Waworuntu et al., 2023).

The Relationship Between The Quality Of The Online Registration System And The
Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al
1018 |P a g e

In the accuracy dimension, the study found that 35.7% agreed and 17.1% disagreed that the online registration provided accurate registration. Meanwhile, 38.6% agreed and 17.1% disagreed that the online registration was reliable. Other research indicates that in the analysis of user perception of payment gateway services in financial technology, 40% of respondents were satisfied and 20% were dissatisfied (Prilly Palar et al., 2016). Accuracy is a component used to measure user satisfaction from the perspective of data accuracy when the system receives input and processes it into information (Widianto et al., 2023).

Regarding the format dimension, the study found that 37.1% agreed and 21.4% disagreed that the display was attractive, 42.9% agreed and 24.3% disagreed that the menu display was easy to use, 31.4% agreed and 21.4% disagreed that the menu layout was easy to understand, while 24.3% agreed and 28.6% disagreed that the website layout was easy to understand. Format (appearance) of online registration plays a crucial role as it relates to user satisfaction (Solihah & Budi, 2018).

In the ease of use dimension, it was found that 35.7% agreed and 37.1% disagreed with the satisfaction of the provided online registration, while 31.4% agreed and 42.9% disagreed with the ease and accessibility of online registration. The ease of use dimension measures user satisfaction from the perspective of how user-friendly the system is, including data entry, data processing, and finding needed information (Aula Rumana et al., 2021).

In the timeliness dimension, the results showed that 20% agreed and 37.1% disagreed that online registration provided timely outpatient registration. Meanwhile, 34.3% agreed and 35.7% disagreed that the response time for processing registrations was fast. Timeliness is also an important aspect of an information system; the faster the output, the better the user satisfaction achieved (Ratna et al., 2022). Timeliness in healthcare service is a factor or measure of success for hospitals providing healthcare services (Rohman & Marsilah, 2022).

Patient satisfaction is determined by various types of service received during different stages of healthcare (Rahmajati, 2020). Dissatisfaction at the initial stage of service can lead to a negative perception of service quality in subsequent stages, resulting in overall patient dissatisfaction (Purba, 2022). Patient satisfaction is a measure of healthcare service quality (Saputra et al., 2020). Satisfactory service will make patients loyal and continue to use the provided services (Yunita et al., 2023). Loyal customers will help the healthcare service provider institution to sustain (Ardiansyah et al., 2021). Based on the results, respondents who disagreed were more prevalent in the format, ease of use, and timeliness dimensions. It is hoped that Bangli General Hospital will review the online outpatient registration service by evaluating and improving the SIDOLI online registration application in the format, ease of use, and timeliness dimensions to enhance outpatient satisfaction with the SIDOLI online registration service at Bangli General Hospital.

CONCLUSION

The analysis results of this study found a significant relationship between system quality and outpatient satisfaction with the online registration system, with a p-value of 0.05. The correlation indicates a weak relationship, with a value of r = 0.279. It is recommended that hospitals evaluate and improve the dimensions of format, ease of use, and timeliness in their

online registration applications to enhance the satisfaction of outpatients using the online registration service.

REFERENCE

Ardiansyah, I., Prasetyowati, A., & Latif, M. N. (2021). Efisiensi Waktu Tunggu Pendaftaran Online Pasien Rawat Jalan-Literature Review. *Jurnal Ilmiah Penelitian Kesehatan*, *1*(1), 7–17.

Aula Rumana, N., Happy Putra, D., Widjaja, L., Maharami, I., & Hidayat, R. (2021). Kepuasan Pasien terhadap Aplikasi Pendaftaran Online Menggunakan Metode EUCS (End User Computing Satisfaction) di RSUP Fatmawati. In *Journal of Hospital Management ISSN* (Vol. 4, Issue 1).

Diki M, Almasyhuri, Setiani LA. *Evaluasi Tingkat Kepuasan Pasien Terhadap Pelayanan Kefarmasian Di Rumah Sakit Sekarwangi Cibadak Kabupaten Sukabumi*. J Ilm Ilmu Terap Univ Jambi. 2020;4(2):174–86.

Hasbina Wildani, Badiran M, Hadi AJ. *Hubungan Kualitas Pelayanan Kesehatan Rawat Jalan Dengan Tingkat Kepuasan Pasien* Pasien Jaminan Kesehatan Nasional Di RSU Muhammadiyah Sumatera Utara. J Komunitas Kesehatan Masyarakat [Internet]. 2020;1(2):7–21. Available from: Kualitas Pelayanan

Prilly Palar, F., Djawa, D., & Lumataw, A. (2016). Pengaruh Penggunaan Sistem Informasi Micros POS (Point Of Sales) Terhadap Efisiensi Pelayanan Karyawan Di Restoran. *Jurnal Hospitaliti Dan Pariwisata*, *3*(1), 01–113.

Primadhani, S. W., Ilyas, Y., & Atthahirah, A. I. (2023). Sistem Pendaftaran Online sebagai Suatu Strategi Peningkatan Layanan Rumah Sakit : Literature Review. *Media Publikasi Promosi Kesehatan Indonesia*, *6*(1), 20–27. https://doi.org/10.31934/mppki.v2i3

Purba, P. P. (2022). Analisis Kepuasan Pasien Terhadap Sistem PendaftaranRawat Jalan Online di RSUP Dr. Sardjito Yogyakarta. *Junal Infokes* , *12*(1), 44–48.

Rahmajati;, A. N. R. A. N. (2020). *Tinjauan Tingkat Kepuasan Pasien Terhadap Pelayanan Pendaftaran Online Rawat Jalan Di Rumah Sakit*. http://repository.poltekkes-smg.ac.id//index.php?p=show_detail&id=22329

Ratna, W., Muhammad, I. N., Abidin, A. Z., & Setiawan, D. (2022). Optimalisasi SIM-RS Dalam Pendaftaran Pasien Online Di RSUD Slg Kediri. *Jurnal Kreativitas Dan Inovasi (Jurnal Kreanova)*, *2*(3), 93–97. https://doi.org/10.24034/kreanova.v2i3.5343

Rohman, H., & Marsilah, M. (2022). Pemanfaatan Sistem Pendaftaran Online Melalui Aplikasi WhatsApp di Rumah Sakit Umum Daerah. *Indonesian of Health Information Management Journal (INOHIM)*, *10*(1), 18–26. https://doi.org/10.47007/inohim.v10i1.397

Saputra, M. G., Kusdiana, A., Suratmi, & Yuniar, I. (2020). Pengaruh Pelayanan Pendaftaran Online Terhadap Kepuasan Pasien Rawat Jalan Di Rumah Sakit Muhammadiyah Lamongan. *JOHC*.

Solihah, A. A., & Budi, S. C. (2018). KEEFEKTIFAN SISTEM PENDAFTARAN ONLINE PASIEN RAWAT JALAN RSUP dr. SOERADJI TIRTONEGORO KLATEN. *Jurnal Manajemen Informasi Kesehatan Indonesia*, *6*(1), 1–6.

The Relationship Between The Quality Of The Online Registration System And The
Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al
1020 |P a g e

Waworuntu, M. Y., Lumi, W. M. E., & Surya, W. S. (2023). Pemahaman Pasien Mengenai Penggunaan pendaftaran Onlinedi Rawat Jalan Rsugmim Bethesda Tomohon. *Jurnal Kesehatan Masyarakat*, *7*(3), 16659–16674.

Widianto, H., Kuswiadji, A., & Kartika, K. (2023). Pengaruh Sistem Pendaftaran Online terhadap Kepuasan Pasien Rawat Jalan. *JPKM: Jurnal Profesi Kesehatan Masyarakat*, *4*(1), 67–74. https://doi.org/10.47575/jpkm.v4i1.475

Yunita, N., Husin, & Ningsih, E. R. (2023). *Tingkat Kepuasan Pasien Pengguna Sistem Pendaftaran Rawat Jalan Sistem Online* (M. Seto, Ed.). CV. SCIENCE TECHNO DIRECT.

The Relationship Between The Quality Of The Online Registration System And The Satisfaction Level Of Outpatient Patients—Pande Wayan Santhosa et.al

1021 |P a g e