

Analysis of Community Satisfaction Index on Health Service Quality: CFA and Gap Analysis

Lina Alfiyani^{1*}, Noor Alis Setiyadi², Asmirati Yakob³, Didik Mulyono⁴, Rohmat⁵,
Mohammad Fathur Rizqi⁶

^{1,3,4,5,6}University of Muhammadiyah Madiun, 63137, East Java, Indonesia.

²University of Muhammadiyah Surakarta, 57169, Central Java, Indonesia.

³Manguharjo Lung Hospital, 63122, East Java, Indonesia.

* Correspondence : la284@ummad.ac.id

Abstract: *The Community Satisfaction Index is the focus of attention because it is a reference in evaluating health service policies on the quality of hospital services. Service quality is a determinant factor of patient safety to reduce the incidence of mortality in hospitals. Cross-sectional is the research design used. The study was conducted from April to June 2023, the population is all patients in the hospital in 2023, and Simple random side as a sampling technique of 136 research subjects. The research variables are performance, expectations, and the Community Satisfaction Index which consists of nine elements, namely requirements; systems, mechanisms, and procedures; turnaround time; cost; product specification type of service; competence of the executor; executor behavior; handling of complaints, suggestions, and inputs. Data collection using questionnaires that have previously been tested for confirmatory factor analysis. Test questionnaires and analyze research results with gap analysis using Wilcoxon in the STATA program. The test results of confirmatory factor analysis showed that RMSEA values = 0.04, CFI = 0.99, $\chi^2 / df = 1.05$, and TLI = 0.99 showed that the model met goodness-of-fit. The gap analysis shows that in the 9 elements of the Community Satisfaction Index, 2 elements are not different, namely the competence of the implementer ($z = -1.570$, $p = 0.116$) and the behavior of the implementer ($z = -1.414$, $p = 0.157$). It is hoped that the results of the research can be used as material for the evaluation of hospital policies.*

Keywords: *confirmatory factor analysis, community satisfaction index, expectations, performance, quality of service*

INTRODUCTION

The healthcare system has evolved with the shift from traditional concepts toward a customer-oriented service industry. This has resulted in challenges for the healthcare industry in delivering high quality healthcare services; safe, fair, evidence-based, timely, efficient, and patient centered services (Sultan et al., 2022). Health service innovation must be carried out to meet the needs of the community to increase the number of hospital visits. Patients are Hospital customers with doctors, paramedical staff, or nurses as service providers. The intellectual skills, knowledge competencies, and professional attitudes possessed by doctors, paramedical staff, or nurses as well as supporting facilities are important points in assessing the satisfaction of services received. The intellect of medical personnel is expected to be able to overcome problems from poor environmental conditions and low personal hygiene behavior that is commonly found in poor people is a hotbed of disease development (Rahmah et al., 2018). Service assessment is based on the entire understanding and is shaped by the operational effectiveness of the hospital (Mutiarasari et al., 2021). The era of the Covid-19 pandemic has sharpened the competition for hospital visits, so it must create services that can be received by customers, according to patient needs. The paradigm shift occurred in the Covid-19 era with a high level of adherence to treatment and prevention compared to before the onset of Covid-19 (Surury et al., 2022).

The satisfaction of patients who visit considers the effectiveness of healing and the quality of service when coming to the hospital so as not to switch to other health facilities because the hospital

provides less than optimal services, it will be left behind in business competition (Manzoor F et al., 2019). In addition to service quality, the provision of facilities and infrastructure to health facilities, and service functions in hospitals need to be considered to support the quality of these services (Yakob et al., 2022). Optimal service quality is an important point that affects patient safety. Maintaining patient safety is the main task of health workers to support the degree of public health (WHO, 2018; Utami et al., 2022). This task has been clearly described in the fourth paragraph of the preamble to the 1945 Constitution, which covers 4 (four) aspects of the main service of the apparatus to the community, namely protecting the entire Indonesian nation and the entire Indonesian homeland, advancing public welfare, educating the nation's life and implementing world order based on independence, lasting peace, and social justice. Public bureaucracy must be able to provide more professional, effective, simple, transparent, open, timely, responsive, and adaptive public services and at the same time be able to build human quality in the sense of increasing the capacity of individuals and communities to actively determine their future (PermenPanRB, 2017).

Health policy analysis is one of the efforts to develop a health system that is in accordance with the needs of the community by providing comprehensive health services (Kementrian Kesehatan RI, 2009). This is in line with the Kemenkes (2020) concerning the Strategic Plan in strengthening the quality of health services which refers to health system transformation by taking into account the Community Satisfaction Index. Based on the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 14 of 2017 concerning Guidelines for the Preparation of Community Satisfaction Surveys for Public Service Organizing Units. The elements of the Community Satisfaction Index as stated in the Minister of PAN RB Number 14 of 2017 include nine elements, namely requirements, procedures, completion time, costs, product specifications, executive competence, implementing behavior, handling and complaining suggestions, and facilities and infrastructure.

Community satisfaction is closely related to the quality of medical services provided (Sakawati et al., 2021). The level of satisfaction is not only a direct reflection of the quality and efficiency of medical services provided, but can also indirectly affect the government's strategy in providing public services (Woo & Choi, 2021). An optimal quality of life for the community can be useful for increasing productivity and playing a role in development, especially in the global population in developing countries with increasingly limited health resources (Kruk et al., 2018). The quality of health services as an investment in increasing the number of visits that are positively related to the Community Satisfaction Index in healthcare facilities such as hospitals (Liu et al., 2021; Ai et al., 2022). The level of satisfaction in both outpatient, inpatient, and emergency department installations plays an important role in policy evaluation to improve the quality and utilization of health services (Asamrew et al., 2020; Ke et al., 2020).

Optimal hospital service quality requires a system and management with high complexity to increase the Community Satisfaction Index supported by regulations, superior resources, science, and technology so that it can develop into public service facilities with high competitiveness and sensitivity to community needs, especially patients as consumers in hospitals (Mosadeghrad, 2014; Mahendradhata et al., 2017). The development of the globalization era with technological advances requires hospitals that can meet consumer needs optimally so a systematic assessment is needed between the relationship between the Community Satisfaction Index and service quality. Community satisfaction is relevant for measuring the performance of health service delivery, which is a multidimensional construct that depends on many factors (Arsita & Idris, 2019; Verma et al., 2020).

Hospitals vary in terms of specialties, services offered, and availability of resources. Quality of care is measured broadly with a scale that measures the patient's perspective. Therefore, research is needed to specifically examine indicators that affect service quality, one of which is related to the Community Satisfaction Index (Shafiq et al., 2017). Valid indicators are needed for service quality evaluation so that aspects of patient needs can be represented according to the results of the Community Satisfaction Index (Prakoewa et al., 2022). In addition, the Community Satisfaction Index is one of the things that need to be considered in the evaluation of health policy analysis so that people's

expectations and needs for health services are met so that the degree of public health increases (Karaca & Durna, 2019). Based on the urgency of the above problem, an in-depth study is needed so that researchers are interested in studying the Analysis of the Community Satisfaction Index on the Quality of Health Services”.

METHOD

Observational analytical research can be done with a cross-sectional study approach. Based on the type, according to chronological timing using retrospective and prospective studies, retrospective studies are carried out because the cases used in the study have occurred at the time of the start of the study. The study was included in observational analytical studies with a cross-sectional design. Population and research samples that remain influential on research results that can be generalized to target population. Determination of research location is an important stage in both qualitative and quantitative research (Kamaruddin et al., 2022). The research location is a place where research is conducted. This research will be carried out at a one hospital in Madiun from April to June 2023. The population is the entire research subject located in an area with a variety of social interactions and the sample is a portion of the population that is the subject of research, where the characteristics are the same as the characteristics of the population (Syahza, 2021). The population used is all people who receive services at the hospital. The sample in this study was some patients who received services at the hospital.

The research instrument is based on PermenPanRB, (2017) to measure the Community Satisfaction Index, which consists of 9 elements. This study uses these 9 elements as variables that make up the Community Satisfaction Index, namely requirements; systems, mechanisms and procedures; turnaround time, fees/rates; product specification type of service; competence of the executor; executor behavior; handling of complaints, suggestions and inputs; as well as facilities and infrastructure which are further assessed based on expectations and performance . Questionnaire items that make up the community satisfaction index are tested for validity and reliability, especially for construct validity tests using CFA to test public perceptions regarding service quality. Validity and reliability tests were conducted on 30 research samples at the Hospital.

Large sample size in quantitative research with multivariate analysis (correlation or regression), the research sample formula is the number of sample members at least 10 times of the variable under study (Sugiyono, 2015). The number of research subjects used was 136 research subjects. Research data consists of two, namely secondary data and primary data. Primary data measurement using questionnaires that have been tested for validity and reliability using Confirmatory Factor Analysis with the STATA program. The questionnaire is based on the Regulation of the PermenPanRB (2017), while the sequencing data is medical record data and hospital profiles. Sampling using a simple random sampling technique. Data processing procedures are carried out by editing, coding, scoring, and tabulating. Analysis of research data with Wilcoxon test with SPSS 23 to determine the gap between expectations and performance on service quality .

RESULTS

Opinion Based Scale Development

Development of opinion scales on questionnaires to measure opinions on service quality using confirmation factor analysis (CFA) with the help of the STATA 13 program. The results of the analysis are shown in Table 1. Results of Estimating Patient Opinions on Service Quality, Table 2. Overall Model Match, and Figure 1. Table 1 shows the Structural Model with Estimate. Table 1 shows that the exogenous latent variable is the Community Satisfaction Index with 9 elements, namely requirements; systems, mechanisms, and procedures; turnaround time; cost; product specification type of service; competence of the executor; implementation behavior; handling of complaints, suggestions, and inputs; and facilities and infrastructure. Analysis of the requirement element shows that for every increase of 1 requirement unit, it will increase the Community Satisfaction Index by 0.56 times with other elements

constant. Analysis of elements of systems, mechanisms, and procedures shows that for every increase of 1 unit of systems, mechanisms, and procedures, it will increase the Community Satisfaction Index by 0.89 times with other elements constant. Analysis of the completion time element shows that for every increase of 1 unit of completion time, it will increase the Community Satisfaction Index by 0.96 times with other elements constant. Analysis of the cost element shows that at each increase of 1 unit the cost will then increase the Community Satisfaction Index as much. 0.76 times with other elements constant. Analysis of the product element of service type specification shows that for every increase of 1 unit of service type specification product, it will increase the Community Satisfaction Index by 0.83 times with other elements constant. Analysis of the implementing competency element shows that for every increase of 1 unit of implementing competence, it will increase the Community Satisfaction Index by 0.90 times with other elements constant. Analysis of the elements of implementation behavior shows that for every increase of 1 unit of implementation behavior, it will increase the Community Satisfaction Index by 0.86 times with other elements constant. Analysis of the elements of implementation behavior shows that for every increase of 1 unit of implementation behavior, it will increase the Community Satisfaction Index by 0.86 times with other elements constant. Analysis of the elements of handling complaints, suggestions, and inputs shows that every increase of 1 unit handling complaints, suggestions, and inputs will increase the Community Satisfaction Index by 0.97 times with other elements constant. Analysis of the elements of facilities and infrastructure shows that for every increase of 1 unit of facilities and infrastructure, it will increase the Community Satisfaction Index by 0.99 times with other elements constant.

The requirement for use of CFA that must be met is the Kaiser-Meyer-Olkin test (KMO) is an index used to test the suitability of factor analysis, validity, and reliability tests, and significant unidimensionality with $KMO \geq 0.5$ with a p-value of ≥ 0.05 . KMO is used to measure the adequacy of sampling so that research results can be generalized to the population. The results show that the KMO value: 0.92, $p < 0.001$ which means that one of the conditions for using CFA has been met. Items in each element of the Community Satisfaction Index questionnaire in assessing opinions on service quality were carried out unidimensionality, reliability, and validity analysis. Comparative Fit Index (CFI). CFI is also an incremental conformity index and Root Mean Square Error of Approximation (RMSEA) RMSEA is one of the informative indices in SEM. Table 2 shows that the CFI value is 0.99, and the RMSEA value is 0.99. The values mentioned above indicate that the construct is unidimensional. Reliability analysis is carried out by looking at the value of alpha Cronbach. The value is used as a measuring tool to show internal consistency if it has an alpha Cronbach ≥ 0.70 . The higher the alpha Cronbach value, the better (consistent) the measuring instrument. The results of the analysis showed that the alpha value of Cronbach in all elements was 0.96.

Researchers ensure that the variables studied can be measured correctly and by the relevant theory so that concurrent validity analysis is carried out. The results of the analysis show that the overall loading factor value of the element is ≥ 0.5 . The SEM test results show that the model meets goodness-of-fit with details based on Table 2. The proposed service quality model of the 9 elements is shown in Figure 1. Confirmation Factor Analysis shows an evaluation of the proposed construction model and has been analyzed with STATA 13. Results show the model already meets the goodness-of-fit used to assess the suitability of the data for the proposed model. Based on Table 2. Indicates that RMSEA values = 0.04, CFI = 0.99, $\chi^2 / df = 1.05$, and TLI = 0.99 indicate that the model results are satisfactory. Thus questionnaire safety items can be used to conduct research.

Table 1. Results of Estimating Patient Opinions on Service Quality

No	Unsur	B	P value	z	CI 95%	
					Lower limit	Upper limit
1	Requirement	0.56	<0.001	4.50	0.32	0.81
2	Procedure	0.90	<0.001	24.41	0.83	0.97
3	Time	0.96	<0.001	61.58	0.93	0.99
4	Cost	0.78	<0.001	10.54	0.63	0.92
5	Product Specifications	0.83	<0.001	14.58	0.72	0.95
6	Competence of Implementers	0.90	<0.001	24.67	0.83	0.97
7	Executor Behavior	0.86	<0.001	17.36	0.76	0.95
8	Complaint Handling	0.97	<0.001	80.88	0.95	1.00
9	Facilities and Infrastructure	0.99	<0.001	136.86	0.98	1.00
Log likelihood		-180.73178				
N		30				

Table 2. Model Fit

No.	Model Fit Criteria	Result
1	Chi-square χ^2	0.397
	Relative χ^2 ($0 \leq \chi^2 \leq 2df$)	28.28
2	RMSEA ($0 \leq RMSEA \leq 1.00$)	0.040
3	CFI ($0 \leq CFI \leq 1.00$)	0.996
4	TLI ($0 \leq TLI \leq 1.00$)	0.995
5	SRMR ($0 \leq SRMR \leq 0.05$)	0.025
6	Value Loading Factor	≥ 0.50
7	KMO	0.92
8	Cronbach Alpha	0.96

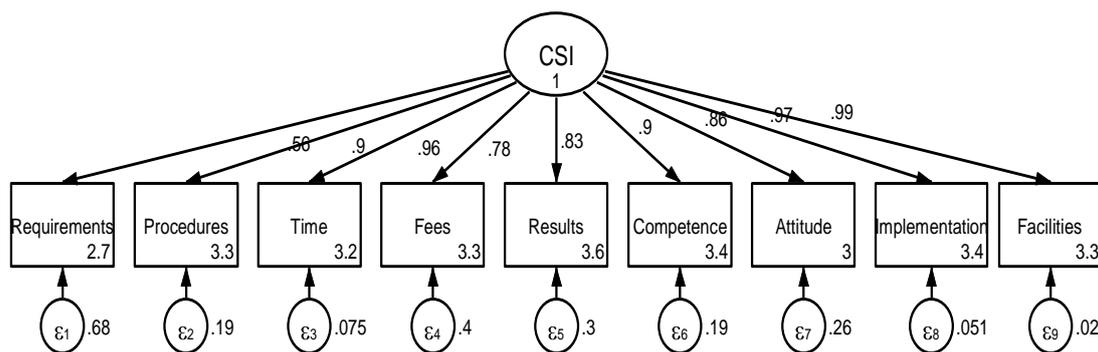


Figure 1. Structural Model with Estimate

Distribution Frequency Performance and Expectations

Distribution frequency of performance and expectations based on the Community Satisfaction Index based on 9 elements where each element consists of 1 question item, univariate analysis based on the results of this study related to the general description of research data for each element which includes requirements; systems, mechanisms, and procedures; turnaround time; cost; product specification type of service; competence of the executor; executor behavior; handling of complaints,

suggestions and inputs; and facilities and infrastructure. Univariate analysis uses continuous data by showing the values of N, mean, standard deviation, minimum and maximum. The results of univariate analysis in tables 3 and 4 are as follows:

Table 3. Distribution Frequency Performance Based on Community Satisfaction Index Elements

No	Variable	N	Mean	SD	Min.	Max.
1	Requirement	136	3.40	0.64	2	4
2	Procedure	136	3.43	0.63	2	4
3	Time	136	3.45	0.69	2	4
4	Cost	136	3.85	0.45	2	4
5	Product Specifications	136	3.41	0.64	2	4
6	Competence of Implementers	136	3.60	0.53	2	4
7	Executor Behavior	136	3.64	0.51	2	4
8	Complaint Handling	136	3.44	0.68	2	4
9	Facilities and Infrastructure	136	3.32	0.70	2	4

Table 3 shows that each variable has a relatively small diversity of data. The mean describes the mean, while the standard deviation (SD) value describes how far the data varies. A small SD value is an indication of representative data. If the SD value is much greater than the mean value, then the mean value is a poor representative of the whole data and if the SD value is very small compared to the mean value, then the mean value can be used as a representative of the whole data.

Based on table 3 it can be seen that the SD value of each variable is smaller than the mean. Requirements with SD 0.64 and mean of 3.40; system mechanisms, and procedures with SD 0.63 and mean of 3.43; completion time with SD 0.69 and mean of 3.45; cost with SD 0.45 and mean of 3.85, product specification service type with SD 0.64 and mean 3.41; executive competence with SD 0.53 and mean 3.64; handling complaints, suggestions, and inputs with SD 0.68 and mean 3.44 and facilities and infrastructure with SD 0.70 and mean 3.32 The conclusion means that data from all variables are representative because all SD values are smaller than the mean value. The distribution of frequency of patient expectations based on elements of the Community Satisfaction Index is as follows:

Table 4. Distribution Frequency of Expectations based on Elements of Community Satisfaction Index

No	Variable	N	Mean	SD	Min.	Max.
1	Requirement	136	3.51	0.50	3	4
2	Procedure	136	3.71	0.45	3	4
3	Time	136	3.74	0.44	3	4
4	Cost	136	3.89	0.31	3	4
5	Product Specifications	136	3.69	0.46	3	4
6	Competence of Implementers	136	3.71	0.45	3	4
7	Executor Behavior	136	3.67	0.47	3	4
8	Complaint Handling	136	3.62	0.57	3	4
9	Facilities and Infrastructure	136	3.64	0.51	3	4

Based on table 4 it can be seen that the SD value of each variable is smaller than the mean. Requirements with an SD of 0.50 and a mean of 3.51; system mechanisms, and procedures with an SD of 0.45 and mean of 3.71; completion time with SD of 0.44 and mean of 3.74; cost with SD of 0.31 and mean of 3.89, product specification type service with SD 0.46 and mean 3.69; executive competence with SD 0.45 and mean 3.71; executor behavior with SD 0.47 and 3.67; handling complaints, suggestions and inputs with SD 0.57 and mean 3.62 and facilities and infrastructure with SD 0.51 and mean 3.64 The

conclusion means that data from all variables are representative because all SD values are smaller than the mean value

Gap Analysis

Measurements are based on all elements used to determine quality gaps. Statistical tests in this study using the Wolcoxon test with STATA showed that there was a quality gap based on expectations and performance. Quality gaps are calculated by subtracting patients' expectations of service quality scores from opinions regarding service quality, and these scores are compared to similar items by comparing reality and expectations in Table 5. The results showed that the requirement element is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -3.316$, $p = <0.001$). Elements of systems, mechanisms, and procedures are negative rank groups, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -3.796$, $p = <0.001$). The completion time element is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -3.862$, $p = <0.001$).

The cost element is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -2.236$, $p = 0.025$). The specification product element is a negative rank group, meaning that the sample performance group value is lower than the expectation group value with a significant difference between performance and expectation ($z = -3.630$, $p = <0.001$). The element of executive competence is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with no significant difference between performance and expectations ($z = -1.570$, $p = 0.116$). The element of implementing behavior is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with no significant difference between performance and expectations ($z = -1.414$, $p = 0.157$). The element of handling complaints, suggestions, and inputs is a negative rank group, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -2.183$, $p = 0.029$). The last element is that facilities and infrastructure are negative rank groups, meaning that the sample value of the performance group is lower than the value of the expectation group with a significant difference between performance and expectations ($z = -3.859$, $p = <0.001$).

Table 5. Gap Analysis of Community Satisfaction Index Elements

No	Elements	z	p value	Ranking
1	Requirement	-3.316	<0.001	5
2	Procedure	-3.796	<0.001	3
3	Time	-3.862	<0.001	1
4	Cost	-2.236	0.025	6
5	Product Specifications	-3.630	<0.001	4
6	Competence of Implementers	-1.570	0.116	8
7	Executor Behavior	-1.414	0.157	9
8	Complaint Handling	-2.183	0.029	7
9	Facilities and Infrastructure	-3.859	<0.001	2

DISCUSSION

Analysis of confirmatory factors Analysis for questionnaire construct validity tests that have been carried out shows valid and significant results so that they can be used to measure patient perceptions of service quality by assessing the Community Satisfaction Index (Hoseini-Esfidarjani et

al., 2021). The gap analysis was carried out using the Community Satisfaction Index questionnaire, based on the results of this study showing conformity with the results of previous studies (Osta Nababan et al., 2021; Musriha & Hartatiek, 2021), this shows that the need for health service policy analysis through service quality assessment must be an important point in efforts to evaluate health service policies that concentrate on all service areas to improve service quality, especially during the Covid-19 pandemic to increase patient satisfaction (Chen et al., 2021). Managers and decision-makers must lean forward, listen to patient voices, and try to bridge existing gaps (Izadi et al., 2017). The elements of the Community Satisfaction Index on service quality as stated in PermenPAN RB (2017) include nine elements, namely requirements, procedures, turnaround time, costs, product specifications, implementing competencies, implementing behavior, handling and complaining suggestions, and facilities and infrastructure. Quality in health care is the production of cooperation between patients and health care providers in a supportive environment, the results showed that from the 9 elements of the Community Satisfaction Index, 2 elements are in accordance with patient expectations, namely the competence of the implementer and the behavior of the implementer. Completion time and infrastructure should be considered to be reviewed to be in line with expectations.

Factors from providers and patients, as well as factors related to healthcare organizations, healthcare systems, and the environment also affect the quality of health services (Endeshaw, 2021). Health insurance is one of the things that must be considered because it affects community visits to healthcare facilities (Rohmawati et al., 2014). Documentation and reporting are also important points in the implementation of a comprehensive service system, there is an application system that accelerates service efficiency compared to manual service, the application system is related to the patient data input process which is integrated with recording and reporting in the patient register book (Prasaja et al., 2014).

The health information system has not run well, because the recording and reporting process is still carried out manually, lack of data security, lack data integration, and the information produced is not in accordance with decision-making needs and can affect public perception regarding service quality (Setiyadi & Hakam, 2015). The quality of healthcare can be improved by supportive visionary leadership, proper planning, education and training, availability of resources, effective resource management, employees and processes, and collaboration and cooperation among providers (Mosadeghrad, 2014).

CONCLUSION

The results of the study can be concluded that from the 9 elements of the Community Satisfaction Index, 2 elements are in accordance with patient expectations, namely the competence of the implementer and the behavior of the implementer. Completion time and infrastructure should be considered to be reviewed to be in line with expectations. The results of the study can be used as a study for evaluation and policy analysis in increasing the Community Satisfaction Index, one of which is the Importance Performance Analysis method based on 9 elements of the Community Satisfaction Index.

REFERENCES

- Ai, Y., Rahman, M. K., Newaz, M. S., Gazi, M. A. I., Rahaman, M. A., Mamun, A. Al, & Chen, X. (2022). Determinants of patients' satisfaction and trust toward healthcare service environment in general practice clinics. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.856750>
- Arsita, R., & Idris, H. (2019). the Relationship of Hospital Cost, Service Quality and Patient Satisfaction. *Jurnal Ilmu Kesehatan Masyarakat, 10*(2), 132–138. <https://doi.org/10.26553/jikm.2019.10.2.132-138>
- Asamrew, N., Endris, A. A., & Tadesse, M. (2020). Level of Patient Satisfaction with Inpatient Services and Its Determinants: A Study of a Specialized Hospital in Ethiopia. *Journal of Environmental and Public Health, 2020*. <https://doi.org/10.1155/2020/2473469>
- Chen, W., Shi, Y., Fan, L., Huang, L., & Gao, J. (2021). Influencing factors of public satisfaction with covid-19 prevention services based on structural equation modeling (Sem): A study of Nanjing,

- China. *International Journal of Environmental Research and Public Health*, 18(24). <https://doi.org/10.3390/ijerph182413281>
- Endeshaw, B. (2021). Healthcare service quality-measurement models: a review. *Journal of Health Research*, 35(2), 106–117. <https://doi.org/10.1108/JHR-07-2019-0152>
- Hoseini-Esfidarjani, S. S., Negarandeh, R., Delavar, F., & Janani, L. (2021). Psychometric evaluation of the perceived access to health care questionnaire. *BMC Health Services Research*, 21(1), 1–10. <https://doi.org/10.1186/s12913-021-06655-2>
- Izadi, A., Jahani, Y., Rafiei, S., Masoud, A., & Vali, L. (2017). Evaluating health service quality: using importance performance analysis. *International Journal of Health Care Quality Assurance*, 30(7), 656–663. <https://doi.org/10.1108/IJHCQA-02-2017-0030>
- Kamaruddin, I., Juwariah, T., Susilowati, T., Mardiana, Suprpto, Marlina, H., Pertiwi, S. M. B., Agustini, M., Supriyadi, A., Ningsih, A. P., & Setyawati, M. (2022). *Metodologi Penelitian Kesehatan Masyarakat* (Issue October).
- Karaca, A., & Durna, Z. (2019). Patient satisfaction with the quality of nursing care. *Nursing Open*, 6(2), 535–545. <https://doi.org/10.1002/nop.2.237>
- Ke, L., Chen, J., Jia, J., Ke, P., Chen, X., Mao, Z., & Liu, B. (2020). Outpatients' satisfaction in the context of 10 years of health-care reform: A cross-sectional study of tertiary hospitals in shiyan, China. *Patient Preference and Adherence*, 14, 191–202. <https://doi.org/10.2147/PPA.S233472>
- Kemendes. (2020). Permenkes RI Nomor 21 Tahun 2020. *Kementerian Kesehatan RI*, 9(May), 6. https://www.slideshare.net/maryamkazemi3/stability-of-colloids%0Ahttps://barnard.edu/sites/default/files/inline/student_user_guide_for_spss.pdf%0Ahttp://www.ibm.com/support%0Ahttp://www.spss.com/sites/dm-book/legacy/ProgDataMgmt_SPSS17.pdf%0Ahttps://www.n
- Kemendrihan Kesehatan RI. (2009). UU no. 44 Tahun 2009 Tentang RS. *Undang-Undang Republik Indonesia*, 1, 41. <https://peraturan.go.id/common/dokumen/ln/2009/uu0442009.pdf>
- Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., Doubova, S. V., English, M., Elorrio, E. G., Guanais, F., Gureje, O., Hirschhorn, L. R., Jiang, L., Kelley, E., Lemango, E. T., Liljestrand, J., ... Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. *The Lancet Global Health*, 6(11), e1196–e1252. [https://doi.org/10.1016/S2214-109X\(18\)30386-3](https://doi.org/10.1016/S2214-109X(18)30386-3)
- Liu, S., Li, G., Liu, N., & Hongwei, W. (2021). The Impact of Patient Satisfaction on Patient Loyalty with the Mediating Effect of Patient Trust. *Inquiry (United States)*, 58. <https://doi.org/10.1177/00469580211007221>
- Mahendradhata, Y., Trisnantoro, L., Listyadewi, S., Soewondo, P., MArthias, T., Harimurti, P., & Prawira, J. (2017). *The Republic of Indonesia Health System Review* (Vol. 7, Issue 1).
- Manzoor F, Wei L, Hussain A, Asif M, & Shah S. (2019). *Patient satisfaction with health care services; an application of physician's behavior as a moderator. International Journal of Environmental Research and Public Health [revista en Internet] 2019 [acceso 20 de octubre de 2022]; 16(18): 1-16. 1–16.*
- Mosadeghrad, A. M. (2014). Factors influencing healthcare service quality. *International Journal of Health Policy and Management*, 3(2), 77–89. <https://doi.org/10.15171/ijhpm.2014.65>
- Musriha, S. R., & Hartatiek, W. (2021). Analysis of Community Satisfaction Index on Public Services in Industrial Revolution 4.0. *PalArch's Journal of Archaeology of ...*, 18(4), 1457–1472. <https://archives.palarch.nl/index.php/jae/article/view/6504%0Ahttps://archives.palarch.nl/index.php/jae/article/download/6504/6338>
- Mutiarasari, D., Demak, I. P. K., Bangkele, E. Y., Nur, R., & Setyawati, T. (2021). Patient satisfaction: Public vs. private hospital in Central Sulawesi, Indonesia. *Gaceta Sanitaria*, 35(December), S186–S190. <https://doi.org/10.1016/j.gaceta.2021.07.012>
- Osta Nababan, B., Nugroho, A., & Riadi, S. (2021). Analysis of Community Satisfaction with Public Services in The Bojong Gede District Office, Bogor Regency. *Majalah Ilmiah Bijak*, 18(3), 31–41. <https://doi.org/10.31334/bijak.v19i1.1960>
- PermenPanRB. (2017). Cell density-dependent stimulation of glutamine synthetase activity in cultured

- mouse teratoma cells. In *Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 14 Tahun 2017*. [https://doi.org/10.1016/0014-4827\(75\)90518-2](https://doi.org/10.1016/0014-4827(75)90518-2)
- Prakoewa, C. R. S., Hidayah, N., Dewi, A., Purnamasari, I., Adriansyah, A. A., & Yaqub, A. M. (2022). Patient Satisfaction, Perception-Expectation Gap, and Costumer Satisfaction Index in Annual Survey 2021 at Dr. Soetomo General Academic Hospital. *Folia Medica Indonesiana*, 58(2), 178–186. <https://doi.org/10.20473/fmi.v58i2.34550>
- Prasaja, H. sukes, Setiyadi, N. A., & Kurniawan, A. (2014). Analisis sistem informasi registrasi pasien di rumah sakit umum asy-syifa sambi boyolali artikel publikasi ilmiah. *Jurnal Teknik Informatika Dan Sistem Informasi*, 3(2), 24–69.
- Rahmah, A. H., Dharmawan, R., & Rahardjo, S. S. (2018). Socioeconomic, Environmental, and Behavioral Determinants of Leprosy in Kediri, East Java. *Journal of Epidemiology and Public Health*, 03(02), 253–262. <https://doi.org/10.26911/jepublichealth.2018.03.02.05>
- Rohmawati, D., Setiyadi, N. A., & Werdani, K. E. (2014). Hubungan pengetahuan sikap dan sosial ekonomi dengan pemilihan jenis iuran keikutsertaan JKN Mandiri pada wilayah cakupan JKN tertinggi di Surakarta. 1–13. <http://eprints.ums.ac.id/32416/>
- Sakawati, H., Agustina, N., & Sulmiah, S. (2021). The Influence of Service Quality on inpatients Satisfaction: Study at Bahagia Hospitals, Makassar City. *Jurnal Office*, 7(1), 21. <https://doi.org/10.26858/jo.v7i1.19819>
- Setiyadi, N. A., & Hakam, F. (2015). Analysis of Health Information System in Muhammadiyah Medical Center (MMC) Muhammadiyah University of Surakarta. *Jurnal IKESMA*, 11(1), 1–14.
- Shafiq, M., Naeem, M. A., Munawar, Z., & Fatima, I. (2017). Service quality assessment of hospitals in Asian context: An empirical evidence from Pakistan. *Inquiry (United States)*, 54. <https://doi.org/10.1177/0046958017714664>
- Sugiyono. (2015). *Metode Penelitian Kuantitatif Kualitatif R & D*. Alfabeta.
- Sultan, N., Mahajan, R., Kumari, R., Langer, B., Guta, Rajiv, K., Mir, Menhak, T., Chowdhary, N., & Sultan, A. (2022). Patient satisfaction with hospital services in COVID-19 era: A cross-sectional study from outpatient department of a tertiary care hospital in Jammu, UT of J&K, India. *Journal of Family Medicine and Primary Care*, 11(10). <https://doi.org/10.4103/jfmpc.jfmpc>
- Surury, I., Ali, L. H., & Prastiwi, N. D. (2022). Satisfaction of Non-Covid-19 Patients Under National Health Insurance (Jkn) in Changes in Health Services During the Covid-19 Pandemic and Associated Factors. *Jurnal Ekonomi Kesehatan Indonesia*, 7(1), 23. <https://doi.org/10.7454/eki.v7i1.5442>
- Syahza, A. (2021). Metodologi Penelitian: Metodologi penelitian Skripsi. In *Unri Press* (Vol. 2, Issue 01).
- Utami, S. P., Maarif, M. S., & Simanjuntak, M. (2022). Strategy for Increasing Consumer Satisfaction of Hospital Services Using Importance-Performance Analysis (IPA) Approach. *Jurnal Aplikasi Bisnis Dan Manajemen*, 8(2), 383–393. <https://doi.org/10.17358/jabm.8.2.383>
- Verma, M., Rama, K., & Aggarwal, R. (2020). Assesment of Patients Statisfaction Visiting a Tertiary Health Care Institute in North India. *Journal of Pharmacy and Bioallied Sciences*, 12(3). <https://doi.org/10.4103/jpbs.JPBS>
- WHO. (2018). Quality in primary health care. *Preventive and Social Medicine*, 54.
- Woo, S., & Choi, M. (2021). Medical service quality, patient satisfaction and intent to revisit: Case study of public hub hospitals in the Republic of Korea. *PLoS ONE*, 16(6 June 2021), 1–14. <https://doi.org/10.1371/journal.pone.0252241>
- Yakob, A., Kamariah, N., & Muttaqin. (2022). Jurnal midwifery. *Jurnal Midwifery*, 4(1). <https://doi.org/10.24252/jmw.v4i1.28962>