



THE INFLUENCE OF ORGANIZATIONAL, INTERACTION AND COMMUNICATION, COSTS AND WAITING TIMES ON PATIENT SATISFACTION AT XYZ HOSPITAL IN NORTH MINAHASA

Oleh

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Abstrak

In a strategy to increase the number of patients and also improve the quality of services, health service providers compete with each other to improve and improve their performance in selling health services. XYZ Hospital in North Minahasa is a private hospital that has been operating since 2020. The number of patient visits at XYZ Hospital in North Minahasa continues to increase considering that this hospital is the only type B private hospital in the North Minahasa area. However, patient satisfaction at XYZ Hospital in North Minahasa is not in line with the increase in patients. This study aims to determine the factors that influence patient satisfaction at XYZ Hospital in North Minahasa. This research uses quantitative research methods using questionnaires to 170 outpatient insurance patients. The results of this research are that patient demographic variables, organizational factors, interaction between patients, attention and emotional support, communication and information and waiting time have a positive and significant influence on patient satisfaction. Meanwhile, health costs have a negative and insignificant influence on patient satisfaction. So, hospitals should implement strategies to increase patient satisfaction by creating a culture of safety to increase patient satisfaction at XYZ Hospital in North Minahasa.

Kata Kunci: Employee Job Satisfaction, Work Productivity, Service Quality

INTRODUCTION

Hospital providing treatment services in the form of overnight and outpatient treatment, the hospital is equipped with complete diagnostic and physiotherapy facilities, apart from that, it also provides good service to patients and tries to provide the best so that patients feel satisfied with treatment at the hospital (Lumanaw et al., 2021).

XYZ Hospital in North Minahasa is a type B private hospital which has been operating since 2020. The number of patient visits at XYZ Hospital in North Minahasa continues to increase considering that this hospital is a referral hospital in the North Minahasa Region.

Table 1. Data on the Number of Patient Visits at the North Minahasa Medika Hospital Center

No.	Year	Number of Patient Visits
1.	2021	940
2.	2022	2052
3.	2023	2464

As in table 1, in 2021 the number of insurance outpatient visits will be 940 patients. Meanwhile, in 2022 the number of insurance outpatient visits will increase by 2052 patients. From 2023 to August 2023 there will be 2464 patients. Even though there has been an increase in the number of patients, based on surveys conducted by hospitals, the satisfaction



index for outpatients, especially insurance outpatients, has decreased.

The insurance outpatient satisfaction index in 2023 will decrease, where in June 2023 it was 87.47%, in July 2023 it was 86.03% and in August it was 85.19%. However, because there is an increase in the number of visitors, this means there should also be an increase in patient satisfaction.

In line with the increasing number of patients, patient satisfaction must also be met. (Thomas C. Tsai, 2015). This is in accordance with research by (Oktarlina et al., 2019) that the greater the number of patient visits, the hospital is obliged to meet patient satisfaction. It has been proven that patient satisfaction is one of the benchmarks for hospital service standards that must be implemented.

Thus, patient satisfaction at a hospital depends on the services provided by the hospital. However, the services provided are still not in accordance with what patients want and patient satisfaction is still not up to standard (Widiasari et al., 2019).

Achieving patient satisfaction with health services certainly refers to various factors. Donabedian's theory defines that patient satisfaction is directly proportional to the quality of service provided to patients. The existence of an interpersonal relationship between the patient and the hospital can also have an impact on patient satisfaction (Ma et al., 2019). Interpersonal relationships and the quality of services provided have an impact on patient satisfaction, such as the facilities provided, friendliness of staff, specialist equipment and examination costs (Bergh et al., 2022).

In fact, several studies show data about the level of patient satisfaction in various countries. Research conducted in Rwandan hospitals showed a low level of patient satisfaction, namely 38.6%. This is due to several factors, namely waiting time and follow-up costs (Ngabonzima et al., 2020).

XYZ Hospital in North Minahasa has the task of carrying out health efforts so that they are efficient and effective by prioritizing healing and recovery efforts carried out in harmony, integrated with improvement and prevention efforts as well as carrying out referral efforts and quality health services in accordance with hospital service standards.

By providing quality services and carrying out development, hospitals will be successful in attracting large numbers of patients. Patient assessment of the quality of hospital services is important as a reference in improving services, so as to create patient satisfaction.

RESEARCH CONCEPT



Figure 1. Theoretical framework

Source: (Bergh et al., 2022) (Wang et al., 2019)

The dependent variable in this research is patient satisfaction. The independent variables in this study are patient demographics, organizational factors, interactions between patients and hospitals, attention and emotional support, health costs, communication and information and waiting times. The aim of this research is to test and analyze the influence of patient satisfaction.



METHOD

This research is included in a quantitative cross-sectional study where the data collection process is carried out only once in a certain time period. The method for analyzing the results of this research is to use the smartPLS Professional 3.4.0 program.

The inclusion criteria in this study were first, patients who had received treatment at XYZ Hospital in North Minahasa. Second, this patient is an insurance outpatient. This criterion was determined with the assumption that the respondents of this study had understood and had experience of receiving treatment or receiving treatment at XYZ Hospital in North Minahasa so that they were able to provide information in accordance with this objective. The choice of type B private hospital was made with the consideration that this hospital is one of the hospitals with an increasing number of visits, so the quality of service must be maintained and prioritizing patient satisfaction.

Analisis inferensial pada studi ini dilakukan dengan metode statistik multivariat *Partial Least Square-Structural Equation Model* (PLS-SEM). PLSSEM dipilih dalam studi ini sebab telah terbukti lebih efektif dalam memperkirakan hubungan antar variabel dalam suatu model yang kompleks dan memiliki kemampuan prediksi dalam konteks studi social

1. Outer Model

The independent variable in this study has dimensions, the outer model assessment will be carried out twice, once at the LOC and once at the HOC. The first test is a reliability test. The results of the reliability test on the outer model come from a study of SmartPLS® data on 132 metric samples with the choice of the PLS algorithm analysis method with path settings. The results of the outer model of reflective constructs can be divided into four parts, namely: 1) indicator reliability as viewed from the outer loading value, 2) construct reliability as viewed from Cronbach's alpha, point estimate and composite reliability values, 3) construct

validity as assessed from average variance extracted (AVE) and 4) discriminant validity as viewed from the heterotrait/monotrait ratio (HT/MT) values. The results of the outer model LOC measurements can be seen in the image below.

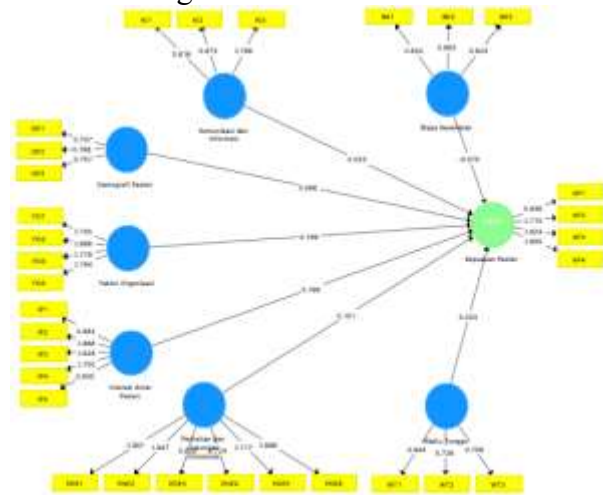


Figure 2. Outer LOC Model Results

Source: PLS-SEM processed results (2023)

Evaluation of the outer model begins with measuring the outer loading to assess the reliability of the indicators in the study (indicator reliability). Because this study uses a disjoint two-stage approach to analyze independent variables that have dimensions, this measurement was carried out twice. From the results of data processing, it was obtained that the outer loading value was above the threshold value of 0.6. The commonly used threshold value is 0.708, but in exploratory research, the threshold value can be determined at 0.6. If the outer loading value exceeds 0.6, the indicator is declared reliable for measuring the construct (Joseph F. Hair Jr, 2021). Details of the LOC reliability indicator measurement results can be seen in the following table.

**Table 2. Nilai Outer Loading**

Variabel	Dimensions	Indikator	Outer Loading	Result
Patient Demographics		DP1	0,707	Reliabel
		DP2	0,768	Reliabel
		DP3	0,757	Reliabel
Organizational Factors		FO1	0,705	Reliabel
		FO2	0,886	Reliabel
		FO3	0,778	Reliabel
		FO4	0,794	Reliabel
Interaction Between Patients		IP1	0,882	Reliabel
		IP2	0,866	Reliabel
		IP3	0,828	Reliabel
		IP4	0,705	Reliabel
		IP5	0,845	Reliabel
Patient Satisfaction	Attention and Support	PDE1	0,907	Reliabel
		PDE2	0,847	Reliabel
		PDE3	0,83	Reliabel
		PDE4	0,724	Reliabel
		PDE5	0,717	Reliabel
		PDE6	0,886	Reliabel
Communication and Information		KI1	0,816	Reliabel
		KI2	0,873	Reliabel
		KI3	0,788	Reliabel
Health Costs		BK1	0,824	Reliabel
		BK2	0,883	Reliabel
		BK3	0,824	Reliabel
Waiting time		WT1	0,844	Reliabel

Variabel	Dimensions	Indikator	Outer Loading	Result
		WT2	0,726	Reliabel
		WT3	0,709	Reliabel

The second stage in outer model analysis is to look at construct reliability (Sarstedt et al., 2022; Hair et al., 2019). In the outer model, reliability consistency tests were also carried out using Cronbach's alpha and composite reliability values. The condition for the results is that Cronbach's alpha is above 0.7 as the lower bound, while the composite reliability value is between 0.7 to 0.95. The composite reliability value of 0.95 can be considered as the upper bound. If a value greater than this value is found, it can be suspected that there is redundancy of the indicator (Hair et al., 2019). The construct reliability test results are displayed in the table below: Tabel 3. Nilai Contrast Reliability

Tabel 3. Contrast Reliability

Variabel	Cronbach's Alpha	Composite Reliability	Result
Patient Demographics	0,897	0,788	Reliabel
Organizational Factors	0,809	0,871	Reliabel
Interaction Between Patients	0,89	0,915	Reliabel
Attention and Support	0,908	0,936	Reliabel
Health Costs	0,767	0,866	Reliabel
Communication and Information	0,804	0,855	Reliabel
Waiting time	0,835	0,805	Reliabel

The data in table 3 above shows that the Cronbach's alpha value for all the variables above is more than 0.7. Then in the same table, the composite reliability value for all variables is between 0.7 as the lower limit to 0.95 as the upper limit, so it can be said that no redundancy



was found. Based on the data from the consistency test results above, it can be concluded that the indicator -The indicators in this research model are reliable for measuring their respective constructs.

All variable reflective indicators exceed the set limit values so it can be concluded that all indicators are reliable for measuring the constructs in this study. After testing reliability, then test validity. The next outer model assessment is an assessment of construct validity or what is also called convergent validity in the reflective model as used in the study. Validity is determined using the average variance extracted (AVE) value. The AVE value is the average value of the construct variant which is the lower limit value. In general, a variable is considered valid if it has an AVE value of more than 0.5 (Joseph F. Hair Jr, 2021).

Table 4. Average Variance Extraced

Variabel	Average variance extracted (AVE)	Result
Patient Demographics	0,554	Valid
Organizational Factors	0,629	Valid
Interaction Between Patients	0,685	Valid
Attention and Support	0,675	Valid
Health Costs	0,712	Valid
Communication and Information	0,683	Valid
Waiting time	0,581	Valid

The fourth stage of the outer model analysis is validity testing by looking at discriminant validity in the model (Hair et al., 2019).The validity test is carried out to determine whether a construct or variable has indicators that have discriminated well to measure the construct specifically, and the method used is by assessing the heterotrait-

monotrait ratio (HT/MT). The HT/MT ratio is regarded as a more precise discriminant validity measure than the Fornell-Larcker ratio, which was initially recognised and utilised (Henseler et al., 2014).

The HT/MT ratio reference value is less than 0.9, indicating that a construct has a validly discriminated indicator. This means that the indicators on one variable can be interpreted as having been able and specific to measure the construct (Henseler et al., 2014).

Table 5. Nilai Rasio Heterotrait/Monotrait

	Health Costs	Patient Demographics	Organizational Factors	Interaction Between Patients	Patient Satisfaction	Communication and Information	Attention and Support	Waiting time
Health Costs								
Patient Demographics	0.45							
Organizational Factors	0.403	0.519						
Interaction Between Patients	0.205	0.405	0.392					
Patient Satisfaction	0.359	0.452	0.448	0.514				
Communication and Information	0.279	0.364	0.317	0.292	0.204			
Attention and Support	0.431	0.335	0.392	0.296	0.310	0.23		
Waiting time	0.650	0.745	0.549	0.304	0.534	0.684	0.497	

Based on table 5. above, by looking at the heterotrait-monotrait ratio (HT/MT) value of each variable it was found to be less than 0.9 so it can be concluded that the discriminant validity test results of all indicators in this research model have been discriminated well so that they can be used to measure their respective constructs. In the matrix table, it was found that there were construct relationships that had ratio values above 0.9, where the highest value was found at 0.929. However, these findings were then confirmed by the inferential stage with bootstrapping in drawing conclusions from discriminant testing. From the bootstrapping results, a confidence interval range (CI 95%) was found where no upper limit value was found to be more than 1.0. These data show acceptable discrimination, even though the PLS algorithm's HTMT ratio is above 0.9.



2. Inner Model

The inner model analysis test aims to assess the relationship between latent variables (constructs) of a research model. At the inner model analysis stage, a one-tailed hypothesis test is carried out according to the proposed hypothesis (Hair et al., 2019). PLS-SEM hypothesis testing is carried out using the re-sampling or bootstrapping method using SmartPLS® 4 software. Bootstrapping is a non-parametric procedure that uses re-sampling techniques to test significance and coefficients (Shmueli et al., 2019).

Before testing the hypothesis, the output/results of the inner model test need to be assessed and reported on the quality of the proposed research model in an empirical test. The model quality parameters used in the inner model are variance inflation factor (VIF), R2, f2, Q2, Q2_predict (Hair et al., 2019). This is useful for explaining the explanatory and predictive capabilities of the proposed research model. Then, significance testing is carried out to determine whether the hypothesis can be supported and look at path analysis by looking at the results of the specific indirect effects test.

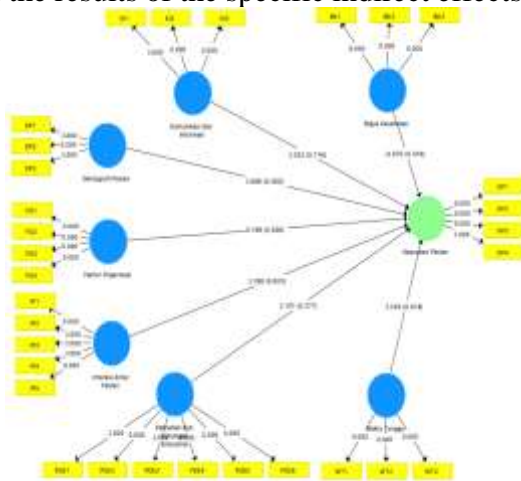


Figure 3. Inner Model

The results of bootstrapping shown in the inner model image above show a research model with one dependent variable, one mediating variable, and four independent variables. Through the inner model image, there

are T-statistics values for the five paths in this research model. This T-statistics value describes a significant relationship provided that the T-statistics value is above the T-table value. The stages and detailed explanation of the inner model results are based on the stages recommended by Hair starting from assessing the quality of the model needed as an equivalent for measuring suitability as in co-variance based methods (Hair et al., 2019). The first inner model test stage carried out was Model Fit. This is done to assess the suitability between the observed correlation and the results in Standardized Root Mean Square (SRMR) < 0.10 or 0.08 so the model is considered suitable. Below is this table.

Table 6. Model Fit Calculation

<i>Model Fit</i>	<i>Saturated Model</i>	<i>Estimated Model</i>
SRMR	0.096	0.096
d_ULS	4.561	4.561
d_G	3.249	3.249
Chi-Square	2423.672	2423.672
NFI	0.455	0.455

It can be seen in the table above that the SRMR value meets the standard criteria. This means that this research model is considered suitable and can be tested in the next inner model. The next stage is the multicollinearity / VIF test. The multicollinearity test is a phenomenon where two or more independent variables are correlated, causing the model's predictive ability to be good or not. Multicollinearity test provisions where the VIF result must be less than 5. The following is the multicollinearity test calculation.



Table 7. Multicollinearity Test

Variabel	B K	D P	F O	IA P	IA KP	K I	PD E	W T
Health					1.3			
Costs					57			
Patient								
Demograp hics					1.3			
Organizati onal					83			
Factors								
Interactio n Between					1.3			
Patients					59			
Patient								
Satisfactio n_								
Communi cation and								
Informatio n					1.4			
Attention and					1			
Emotional								
Support					1.3			
Waiting					21			
time					1.8			
					97			

It can be seen in table 12 above that the results of the multicollinearity test or VIF in this study are <5. So, it can be concluded that all variables do not have multicollinearity problems, meaning that all variables have correlation. Next is R Square. This stage is used to predict the relationship between latent variables. The coefficient of determination or R Square value is between 0 and 1. The following are the results of the R Square calculation.

Table 8. R Square Calculation

Variabel	R Square	R Square Adjusted
Patient Satisfaction	0.675	0.643

It can be seen that the results of R Square in this research are 67.5%. This means that 67.5% of all independent variables have a relationship with patient satisfaction. And as much as 32.5% of patient satisfaction is influenced by other external variables.

Next is to measure the path coefficient.

This means that the path coefficient is used to determine the magnitude of the partial influence in the direction of a positive or negative relationship. The path coefficient has a value range between -1 to 1. The following are the results of the path coefficient

Table 9. Influence Test

Variabel	Path Coefficients	Result
Patient Demographics	0,086	There is a positive influence
Organizational Factors	0,199	There is a positive influence
Interaction Between Patients	0,198	There is a positive influence
Attention and Emotional Support	0,101	There is a positive influence
Health Costs	-0,070	There is no positive influence
Communication and Information	0,023	There is a positive influence
Waiting time	0,203	There is a positive influence

From the table above, the calculation of 6 (six) variables has a positive direction towards patient satisfaction. This means that there is an influence of patient demographics, organizational factors, interaction between patients, attention and support, communication and information and waiting time on patient satisfaction. However, for health costs there is no relationship with patient satisfaction. This is indicated by the calculation of path coefficients which have a negative sign (-). Next, we will see how significant the influence between variables is using the bootstrapping test (partial



influence). The conditions for this test are if the p value is <0.05 then Ho is accepted, Ha is rejected, meaning that the independent variable has a significant effect on the dependent variable. However, if the p value is > 0.05 then Ho is rejected, Ha is accepted, meaning that the independent variable has no significant effect on the dependent variable. The following is the bootstrapping test calculation.

The results of this hypothesis testing can be assessed by looking at two empirical test results, namely the significance value and the coefficient value. The direction of the coefficient must match the direction of the proposed hypothesis because the nature of this hypothesis is directional so a one-tailed test is carried out. If the T-statistics value resulting from bootstrapping is greater than the T-table value, namely 1.645 (with an alpha of 0.05), then the relationship between these variables can be said to be significant (Ringle & Sarstedt, 2016). Analysis of this research model was carried out using a one-tailed hypothesis test with a significance level of 0.05. After seeing the significance, continue by assessing how big the coefficient (standardized coefficient) is on each path. If the test results meet these two requirements, the research hypothesis can be said to be supported (hypothesis supported).

Tabel 10. Bootstrapping Test

<i>Hypothesis</i>	<i>Standardized Coefficient</i>	<i>p-value</i>	<i>CI 5,0 %</i>	<i>CI 95,0 %</i>	<i>Result</i>
H1 Health Costs -> Patient Satisfaction	-0.07	0,278	-0.17	0.042	<i>Hypothesis not Supported</i>
H2 Patient Demographics-> Patient Satisfaction	0.086	0,038	0.055	0.201	<i>Hypothesis Supported</i>
H3 Organizational Factors_ -> Patient Satisfaction_	0.199	0,045	0.067	0.357	<i>Hypothesis Supported</i>
H4 Interaction Between Patients -> Patient Satisfaction_	0.198	0,011	0.086	0.316	<i>Hypothesis Supported</i>

<i>Hypothesis</i>	<i>Standardized Coefficient</i>	<i>p-value</i>	<i>CI 5,0 %</i>	<i>CI 95,0 %</i>	<i>Result</i>
H5 Attention and Emotional Support -> Patient Satisfaction_	0.023	0,023	0.082	0.119	<i>Hypothesis Supported</i>
H6 Information -> Patient Satisfaction_	0.101	0,039	0.006	0.277	<i>Hypothesis Supported</i>
H7 Waiting Time -> Patient Satisfaction_	0.203	0,019	0.067	0.346	<i>Hypothesis Supported</i>

From the results of the table above, it can be seen that 6 (six) variables in this study have supported hypotheses. This means that the Main Hypothesis is accepted. And 1 (one) variable has a hypothesis that is not supported. This means that the Main Hypothesis is rejected.

The next stage uses the analysis menu in data analysis with SmartPLS® Importance Performance Map Analysis (IPMA). This method is a calculation used to obtain variables and indicators whose importance can be quantified and whose performance or performance can also be quantified (Hair et al, 2019). Therefore, it can be determined jointly in these two dimensions the influence on the dependent variable or the one chosen as the target construct in a research model. IPMA analysis on SmartPLS® is carried out using a combination of descriptive analysis (mean) with inferential analysis (total effect). The results of the total effect coefficient value are combined with the value of the average (mean) results of respondents' answers to the latent variable which is displayed in a map or mapping (Ringle & Sarstedt, 2016). In this mapping, the importance value on the IPMA x-axis is obtained based on the total effects value, while the performance value on the y-axis is obtained based on the mean value. In reading, the mean value can be used as a performance cut-off and the effect size value for importance, where the mean value can be used as an



imaginary line reference for dividing quadrants in IPMA, especially which quadrants need to be prioritized, which are also called area of improvement quadrants. From this IPMA analysis, it can be seen what factors have shown good performance and need to be maintained, as well as what factors still need to be improved.

Table 11. Importance-Performance Construct

Variabel	Construct	
	Improtanc e	Performanc e
Health Costs Patient	-0.054	49.985
Demographics Organizational Factors	0.072	51.489
Interaction Between Patients Patient Satisfaction_ Communication and Information Attention and Emotional Support	0.179	63.662
	0.175	56.772
	0.02	53.819
	0.145	52.82
Rata-rata	0.21	54.21

From table 11. the average or mean data for each variable is used to create an imaginary line to divide the quadrants in figure 4 below.

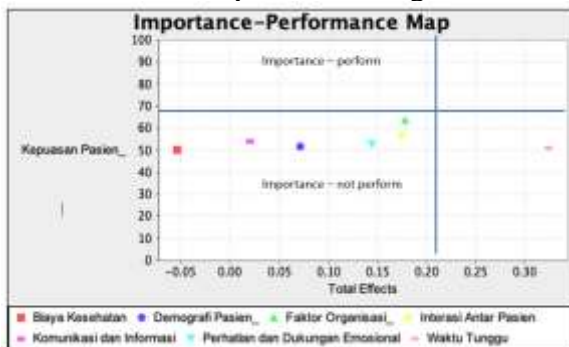


Figure 4. IPMA Patient Satisfaction Construct Results

The mapping concept in IPMA will really help management in developing strategic service steps to achieve the goal of creating patient satisfaction. The results of this research are depicted in the IPMA mapping which can be seen in Figure 4. It is divided into four quadrants which are recommended to be of concern to management. Variables that must be maintained and continuously improved are Health Costs, Attention and Emotional Support, Communication and Information and Waiting Time. Furthermore, the variables that are of further concern to management to improve and work on are organizational factors and interactions between patients and hospital authorities.

DISCUSSION

1. The Influence of Patient Demographics on Patient Satisfaction

The results of the hypothesis test show that Ho is accepted, Ha is rejected. This conclusion was drawn that based on the p-value, the result was 0.039 which was smaller than 0.05. Apart from that, the results of the path coefficient have a value range between -1 to 1, which means that patient demographic variables have a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That patient demographics have a positive and significant influence on patient satisfaction.

The results of this test are in line with research by Rizal & Agus Jalpi, 2018 which states that there are internal factors that determine patient satisfaction such as age, gender, education, occupation and distance traveled to health service locations (Rizal & Agus Jalpi, 2018). According to WHO research in 9 developing countries, it has been concluded that the largest population in society is under five years old (toddlers) and young adults (30-35 years), this age group makes the most use of health service facilities. People who go to health services for treatment are mostly



vulnerable groups, namely toddlers, the elderly and pregnant women, but people who visit health services are mostly of productive age (15-55 years). Every patient who comes in sick, whether young or old, is full of hope, namely wanting to recover, so that young patients express more dissatisfaction compared to those who are old, that there is a difference in satisfaction between young and old. Also those in productive age have greater demands and expectations and tend to criticize basic health services compared to older people (Rizal & Agus Jalpi, 2018).

In a family, a man is the head of the family and tends to protect or intervene and provide a sense of security for his family. Men also tend to influence women more in giving their opinions or considerations about doing something (Lestari & Sunarto, 2017). Thus, men demand more and expect more from the capabilities of the basic health services they receive, in other words the male gender is relatively more dissatisfied (Rizal & Agus Jalpi, 2018).

Someone with a high level of education is more likely to demand or criticize the health services they receive, in contrast to someone with low education who tends to accept more because they don't know what they need. Patients who have a low level of education tend to feel satisfied quickly compared to patients who have a high education, this is related to the different level of knowledge between low education and high education. Here there is a negative relationship between education and the use of health services, the higher the education, the more efficient the use of health services. Someone with higher education will need help from health services if they are no longer able to help themselves. On the other hand, someone with low education will endure pain and if the pain is serious they tend to seek help from traditional medicine (Rizal & Agus Jalpi, 2018).

2. The Influence of Organizational Factors on Patient Satisfaction

The results of the hypothesis test show that H_0 is accepted, H_a is rejected. This conclusion was drawn that based on the p-value, the result was 0.045 which was smaller than 0.05. Apart from that, the results of the path coefficient have a value range between -1 to 1, which means that organizational factor variables have a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That organizational factors have a positive and significant influence on patient satisfaction.

The results of research by Dwi Suranto (2020) regarding Analysis of Patient Safety Culture in Regional Hospitals stated that there is a relationship between the implementation of patient safety culture in the organization and patient satisfaction. The results of the research showed that the majority of the 50 respondents were satisfied with the patient safety culture established by the health service organization where they received treatment (Dwi Suranto et al., 2020).

Staff are always aware of the importance of providing the best nursing services, especially in identifying patients correctly, apart from focusing on health conditions, all actions must have an impact on patient satisfaction. Patient satisfaction is the level of service satisfaction and perception of the patient or closest family. Thus, it can be said that patient satisfaction has a close relationship with whether or not the nurse correctly identified the patient. This shows that it is very important for nurses to pay attention to nursing services to patients, especially in implementing patient safety, because based on the research above, it shows that health services to patients, especially identifying patients correctly, have a relationship with patient satisfaction (Iswati, 2017).



3. *The Influence of Interactions Between Patients and Hospitals on Patient Satisfaction*

The results of the hypothesis test show that Ho is accepted, Ha is rejected. This conclusion was drawn that based on the p-value, the result was 0.011 which was smaller than 0.05. Apart from that, the results of the path coefficient have a value range between -1 to 1, which means that the interaction variable between patient and hospital has a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That the interaction between patients and hospitals has a positive and significant influence on patient satisfaction. This finding is in line with the results of Sihombing's research, 2021, which states that patients have the right to speak and channel their complaints. For example, there is a call button in the inpatient room, there is adequate information space for information that will be needed by hospital service users such as patient families and people visiting the hospital (Sihombing, 2021).

Interaction between patients and hospitals is the ability to communicate to convey information to service users or obtain input from service users. Communication is achieved through easy access, meaning that there is a willingness of service providers to convey information to customers in language that is easy for them to understand, and always listen to customer suggestions and complaints. This includes an explanation of the services offered, service costs, trade offs between services and costs, as well as the process for handling potential problems that may arise (Widiasari et al., 2019).

4. **The Effect of Attention and Emotional Support on Patient Satisfaction**

The results of the hypothesis test show that Ho is accepted, Ha is rejected. This conclusion was drawn that based on the p-value, the result was 0.023 which was smaller than 0.05. Apart from that, the results of the

path coefficient have a value range between -1 to 1, which means that the variables of attention and emotional support have a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That attention and emotional support have a positive and significant effect on patient satisfaction. The better the caring behavior of health workers in providing care services to patients or families, the happier they are in receiving services, meaning that the therapeutic relationship between Care Providers (PPA) and patients is increasingly fostered. PPA's caring behavior greatly influences patient satisfaction, if the services provided are in accordance with the patient's needs and provided in a friendly manner when they are treated according to the resources they have, then the patient will feel high satisfaction. According to Floretta, 2019, the quality of health services has an influence on the frequency of patient satisfaction levels. The better the quality of health services, the better the frequency of patient satisfaction levels (Floretta, 2019). The concept of caring is the least understood idea used by professionals and a concept that remains difficult to define in nursing practice and education, however the term care/caring is very often and is not still used in the nursing discipline (Irenawati, 2020).

Caring is central to PPA practice, which is a dynamic approach, where PPA works to increase its concern for patients. This is the essence of nursing which also means accountability in the relationship between nurse-patient, where nurses must be able to know and understand human habits and human responses to health problems that already exist or have the potential to arise (Amelia, 2018). Caring influences the way humans think, feel, and have relationships with others. Caring facilitates the nurse's ability to recognize clients, makes nurses aware of client problems and seeks and implements solutions, as well as a basic form of nursing practice and also as a structure that has practical implications for



changing nursing practice (Fajriani, 2023). In addition, it also reveals caring as a type of relationship that is necessary between the giver and recipient of care to improve and protect the patient as a person, thereby influencing the patient's ability to recover. Caring involves openness, commitment, and the nurse's relationship with the patient (Rismaniar, 2022).

5. The Effect of Health Costs on Patient Satisfaction

The results of the hypothesis test show that H_0 is rejected, H_a is accepted. This conclusion was drawn that based on the p-value, the result was 0.278 which was greater than 0.05. Apart from that, the results of the path coefficient have a value range of less than -1, which means that the health cost variable has a negative influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared not supported. That health costs have a negative and insignificant effect on patient satisfaction. This is in line with research conducted by Yedo Yendra, 2021 which proves that treatment costs have a negative and insignificant effect on patient satisfaction with a calculated t value $(-1.265) > t$ table (1.985) and a calculated sig value of $0.209 > 0.05$. In this case, the medical costs referred to are the object of expenditure, the main function within the company and the relationship between costs and what is financed (Yedo Yendra, 2021).

The definition of cost is the sacrifice of economic resources measured in units of money, which has occurred, is occurring or which is likely to occur for a particular purpose. Costs are expenses or the value of sacrifices to obtain goods or services that are useful for the future, or have benefits beyond one accounting period. Cost is the sacrifice of economic resources to obtain goods or services that are expected to provide benefits now or in the future (Kotler, 2000).

6. The Effect of Communication and Information on Patient Satisfaction

The results of the hypothesis test show that H_0 is rejected, H_a is accepted. This conclusion was drawn that based on the p-value, the result was 0.039 which was smaller than 0.05. Apart from that, the results of the path coefficient have a value range between -1 to 1, which means that communication and information variables have a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That communication and information have a positive and significant effect on patient satisfaction. In fact, communication is not only limited to communication used to talk to patients, but communication between doctors and patients has a relationship that aims to cure the patient. The communication skills possessed by doctors will not only make it easier to build trusting relationships with patients, but can also prevent legal and ethical problems, improve the image of nursing and the image of the hospital, and can provide professional satisfaction in nursing (Kotler, 2000).

Effective doctor-patient communication is a form of developing an effective relationship between doctors and patients. The main goal of doctors in conveying information is to build cooperation between doctors and patients. The success of building good communication greatly determines the patient's perception of the quality of a health service that is considered to be of high quality, because most feelings of dissatisfaction that arise from patients are usually caused by the doctor's incompetence in carrying out communication (Kotler, 2000). Information is a message or collection of messages consisting of a sequence of symbols or meanings that can be interpreted from the message or collection of messages. The process of diagnosing a disease is an important part of the course of treatment or healing of a disease. In terms of informing a patient about the disease they are suffering from, the doctor should



convey the action that will be carried out and the possible risks of an action before the action is carried out (Kotler, 2000).

7. Effect of Waiting Time on Patient Satisfaction

The results of the hypothesis test show that Ho is accepted, Ha is rejected. This conclusion was drawn that based on the p-value, the result was 0.019 which was smaller than 0.05. Apart from that, the results of the path coefficient have a value range between -1 to 1, which means that the waiting time variable has a positive influence on patient satisfaction. Therefore, statistical evidence in the calculation of this variable is declared supported. That waiting time has a positive and significant effect on patient satisfaction. Waiting time for services is a problem that is still often encountered in health service practice, and is one component that has the potential to cause dissatisfaction, where waiting for a long time causes patient dissatisfaction. According to Yani's research, in 2022, many respondents stated that long waiting times were caused because they did not immediately receive service after arriving at the patient's destination doctor's polyclinic. There is a relationship between waiting time and patient satisfaction because patients who say the waiting time is long tend to feel less satisfied, whereas respondents who say the waiting time is not long tend to feel satisfied with the service at the internal medicine clinic.

This satisfaction arises because patients who come are treated immediately so that patients feel that the staff cares about their condition. However, respondents who are not served immediately will feel anxious, bored and bored so that they feel that the service provided is unsatisfactory and does not meet expectations (Yani et al., 2022). Waiting time is the time used by health workers in hospitals to provide services to patients. Waiting time is a problem that often causes patient complaints in several hospitals. Long waiting times reflect how the hospital manages service components that are

tailored to the patient's situation and expectations. Service waiting time is the patient's waiting time for services starting from the patient's arrival at the registration point at the card counter until the medical file is sent to the destination polyclinic (Christanti, 2017).

Waiting times/patient waiting time is the time needed by a patient from coming to the hospital until receiving service from a doctor. Waiting times/waiting time is the time from registration to consultation with a doctor. There are two categories of waiting time, the first is the time needed to see a doctor and the second is the time needed to obtain a prescription for medication. According to Suryana, in 2018 there are three main elements that influence waiting times, namely: availability of facilities and equipment, human resources, and the patient registration process (Suryana, 2018).

8. Patient Satisfaction Factors at XYZ Hospital in North Minahasa

Based on the results of the influence test calculations, the results obtained were that the patient satisfaction factors and the significant influence at XYZ Hospital in North Minahasa amounted to 67.5% were Patient Demographic Variables, Organizational Factors, Interaction between Patients, Attention and Support, Communication and Information and Waiting time.

CONCLUSION

Patient demographic variables, organizational factors, interaction between patients, attention and emotional support, communication and information and waiting time have a positive and significant influence on patient satisfaction. Meanwhile, health costs have a negative and insignificant influence on patient satisfaction.

SUGGESTION

So, hospitals should implement strategies to increase patient satisfaction by creating a culture of safety to increase patient



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 satisfaction at XYZ Hospital in North
 Minahasa.

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