

# Key Strategie for Expanded Hospital Through Mediation Exploration Nurse-Patient

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## Keywords:

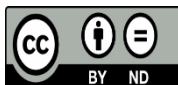
Hospital, Nurse Factor, Patient Satisfaction, Strategy.

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## ABSTRACT

The hospital is one of the places where nurses and patients interact, which requires comfort in the interaction, so a new strategy is needed, through increasing patient satisfaction, the number of hospitals that exist makes it difficult to expanded. Good nurse performance can increase patient satisfaction, which makes it the key to expanding, while the nurse's own performance is influenced by various factors within the nurse. The purpose of this study was to find a key strategy to expand the hospital's through exploration of patient nurse mediation. An analytical correlation study with a cross-sectional design using a random sampling technique with a total sample of 134 respondents was conducted. Somers'd test, lamda test and the ordinal logistic regression test were used in the model description and data analysis. Nurse education has a significant influence on the four factors of nursing and the age of nurses does not have a significant effect on the four factors of nursing, then it shows that the four factors of nursing have a significant influence on patient satisfaction, with the value of nurses' knowledge (p value 0.002; r value 0,525; OR 1,9), and the value of nurses' personality (p value 0.000; value r 0,676; OR 24,7), the value of nurse competency (p value 0.000; r value 0,573; OR 22,8), and the value of the nurse's personality variable (p value 0.000; r value 0,543; OR 3,7).The key strategy to expand the hospital is to increase the four nurse factor indicators (knowledge, attitude, competence, and personality of nurses), which are proven to have a significant effect on increasing patient satisfaction.

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## 1. Introduction

The hospital has become a health industry which in recent years has become more competitive and continues to compete fiercely, this is due to the large number of hospitals that continue to exist, so a hospital that is able to meet expectations and maintain patient satisfaction is needed [22]. The hospital is a health service, facility that provides complete individual health services including inpatient, outpatient, and

emergency care, and provides integrated clinical care, both curative and rehabilitative, where hospital services extend to family and environmental services [23]. One of the basic services is nursing services, nurses are one of the medical personnel with the largest number in hospitals [18].

Nurses make up the largest number of health workers and have the power and influence inherent in the health system [9], and become the most important professional component in health care because nurses provide 80% of basic health care [14]. Nursing services as perceived by patients are comprehensive health services for hospitals [20], and has become an important professional service for hospitals [12]. The services provided by nurses have an influence in determining the quality of health services because nurses are health workers who are always with patients. Nurses are an important part in determining quality and safety in hospitals, and the results of their services can be a determinant of patient satisfaction. Nursing behavior and patient experience about the care received have a close relationship with the quality of care, so that the patient's perception of nursing care can be considered as an important indicator of the quality of nursing care [30]. These nurse values are directly related to quality and clinical practice and can increase patient satisfaction. Nurses who are always involved in patient care, make aspects of nursing care and are able to determine patient satisfaction [21]. Patient satisfaction is an important aspect because satisfaction is the main result of the quality of care [1]. A study results [19] from in Ethiopia shows that nursing care can affect the level of patient satisfaction.

Level of satisfaction is an important benchmark in a health care system because it reflects the quality of service. Therefore, the quality of nursing care provided to patients can reflect the performance of nurses [16]. Performance is influenced by various factors such as attitudes, skills, and competencies [26], and the personality of the nurse [25]. Nursing care is an important indicator because it is one of the factors that determine patient satisfaction. Patient satisfaction is meaningful as a subjective assessment of the patient's cognitive and emotional responses that occur because of the patient's expectations for ideal nursing care. When the assessment of patient satisfaction becomes an important administrative tool in the perspective of patient policy to support health services in maintaining obligations and rights. hospital law in the formulation and management of health policies in hospitals [15].

This fact shows the importance of nurse performance in determining nursing care, but there has been no research that has examined nurse factors ranging from sociodemographic such as age and education, then nurse factors (knowledge, competence, attitude, and personality) with patient satisfaction. Whereas patient satisfaction is needed for marketing or developing hospitals or businesses in the health sector. This phenomenon has prompted a study to explore the mediation of various nurse factors with patient satisfaction in an effort to determine a strategy to expand the hospital.

## **2. Method**

This research is analytic observational with a cross-sectional design. The study was conducted at two hospitals in the province of Central Java, the State of Indonesia. Data collection was carried out in December 2021. The number of respondents in this study was 134, consisting of 67 inpatient nurses and 67 patients treated in inpatient rooms. random sampling. The inclusion criteria set for patients were patients in the inpatient room, able to read and spiritually healthy, with the exclusion criteria being outpatients and patients in the intensive care unit, neonatal or pediatric rooms or patients with decreased consciousness, and for nurses, the inclusion criteria for The nurse assigned is an inpatient nurse with a minimum education of D3. Exclusion criteria were nurses in intensive care units and emergency units; nurses who were on leave to continue their studies; or nurses who were sick. This study has independent variables, namely age, nurse education, and nurse factors consisting of knowledge, attitude, competence, and personality of nurses, with

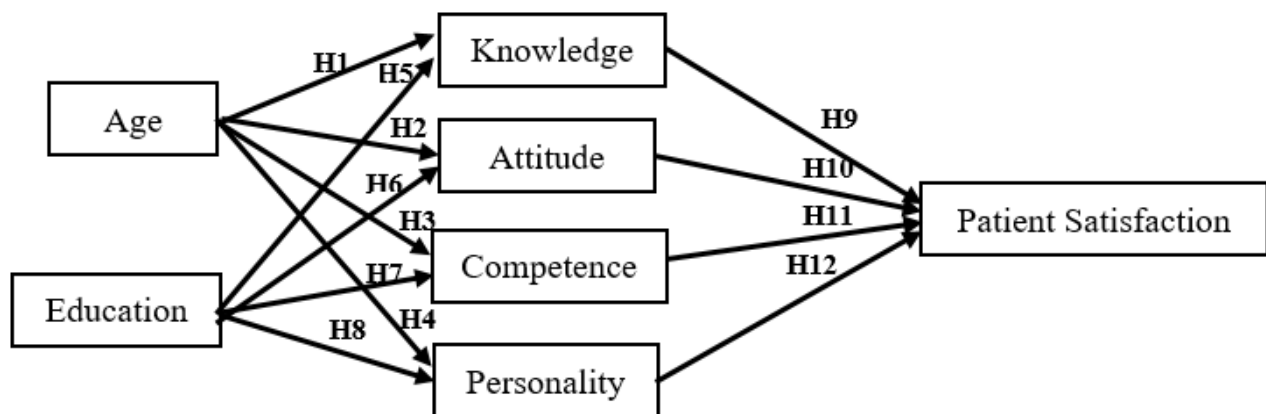
the dependent variable being patient satisfaction.

The questionnaire for all variables uses a data scale, namely the Likert scale. For the four nurse factors, there are strongly disagree, disagree, neutral, agree and strongly agree, while for patient satisfaction, there are very dissatisfied, dissatisfied, neutral, satisfied and very satisfied. Then the variable scales are all ordinal scales with a good rating of 76%-100%, and 55%-75% is sufficient but less than 55%.

The data for this study were collected using a patient satisfaction questionnaire, and the results of the reliability validity test were all valid and reliable, with the nurse factor questionnaire having a validity value of 0.559 to 0.986 and 0.953, and the patient satisfaction questionnaire having a validity value of 0.552 to 0.876 and reliability of 0.906. Attempts have been made to overcome research bias by providing multiple inclusion and exclusion criteria, which tightens the bias and ensures that the criteria are met for the respondents. The steps in the order of data collection are: first, by taking care of licensing after obtaining ethical approval with No. 918/A.1-S1/FIK-SA/XII/2021; second, proceed with the submission of research at a hospital in Central Java, Indonesia; and third, after all permits, the research team has completed collecting data through a research questionnaire conducted in December 2021 in an Islamic hospital in Central Java.

The descriptive test uses a frequency distribution test with two analyses. The first is the bivariate test, because all for age and education are nominal scales and the dependent variable of this study has an ordinal scale. Therefore, to test bivariate or analyze the effect of age and education with the nurse factor (knowledge, attitudes, and competencies of nurses and nurses' personalities) using the Lambda test and to test the nurse factors (knowledge, attitudes, and competencies of nurses and nurses' personalities) on patient satisfaction using the Sommers'd correlation test. The second test is the ordinal logistic regression multivariate test, which aims to determine the odds ratio of each independent variable to the dependent variable.

The analysis or hypothesis path model in this study contains 12 hypotheses, which are described in the following empirical mode.



**Figure 1** Empirical Model

### 3. Results

**Table 1** Distribution of Nurse Frequency by Age, Education, Religion in Hospitals in December 2021 (n=67).

Variable	n	%
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<b>Age</b>	17 – 25 years (Late Adolescence)	6	9
	26 – 35 years (Early Adult)	25	37,3
	36 – 45 years (Late Adulthood)	36	53,7
<b>Education</b>	D3 Nursing	12	17,9
	Nurse Profession	54	80,6
	Master of Nursing	1	1,5

**Table 2** Distribution of Patient Frequency by Age, Gender, Education, and Length of Hospitalization in December 2021 (n=67).

	<b>Variable</b>	<b>n</b>	<b>%</b>
<b>Age</b>	17 – 25 years (Late Adolescence)	21	31,3
	26 – 35 years (Early Adult)	13	19,4
	36 – 45 years (Late Adulthood)	12	17,9
	46 – 55 years (Early seniors)	3	4,5
	56 – 65 years (Late Elderly)	11	16,4
	>65 years old (Seniors)	7	10,4
<b>Gender</b>	Man	25	37,3
	Woman	42	62,7
<b>Education</b>	Primary school	11	16,4
	Junior high school	12	17,9
	Senior high school	33	49,3
	D3	5	7,5
	Bachelor	5	7,5
	Master	1	1,5
<b>Length of Hospitalization</b>	1 – 7 Day	62	92,5
	8 – 14 Day	3	4,5
	>15 Day	2	3,0

**Table 3** Distribution of Variable Frequency in December 2021 (n=67).

<b>Variable</b>	<b>Category Scale</b>						
	<b>Less</b>		<b>Enough</b>		<b>Good</b>		
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	
<b>Nursing Factor</b>	Nurse Knowledge	0	0	12	17,9	55	82,1
	Nurse's Attitude	0	0	13	25,4	54	80,6
	Nurse Competence	0	0	16	23,9	51	76,1
	Nurse Personality	0	0	17	25,4	50	74,6
<b>Patient Satisfaction</b>	Patient Satisfactions	0	0	14	20,9	53	79,1

The characteristics of nurses in table 1 show that the majority of nurses are aged 36-45 years or in late adulthood. There are 36 nurses (53.7%) with the education of the majority of nurses being as many as 54 nurses (80.6%). The characteristics of patients in Islamic hospitals are shown in table 2, which shows the most age, namely late adolescents aged 17-25 years with a total of 21 patients (31.3%), with the majority gender being female with a total of 42 patients (62.7%), with the education level of the majority being senior high school with 33 patients (49.3%), and the length of hospitalization 1-7 days with 62 patients (92.5%).

The results of the frequency distribution in each variable in this study show that the majority have a good level, as reflected in the results of table 3, which shows the knowledge of nurses The majority of nurses have good knowledge, with 55 respondents (82.1%), and then on the variable of nurses' attitudes Then, in

the third variable, namely the competence of nurses, the majority of nurses have a good level of competence, with 51 respondents or (76.6%), and the majority of nurses have a personality. The good one is that there are 50 respondents or (74.6%). The nursing care variable shows the majority of good nursing care, namely there are 53 respondents or (79.1%). The majority of patient satisfaction is good; there are 53 (79.1%).

**Table 4** Analysis of the Socio-Demographic Relationship of Nurses with Nurse Factors in Islamic Hospitals in December 2021 (n = 134).

Variable Nursing Sociodemography		Variabel Nursing Factor								P Value	r
Variable	Category Scale	Nurse Knowledge						Total			
		Less		Enough		Good		n	%		
		n	%	n	%	n	%				
Age	17 – 25 years (Late Adolescence)	0	0	2	33,3	4	66,7	6	100	0,375	0,109
	26 – 35 years (Early Adult)	0	0	4	16,0	21	84,0	25	100		
	36 – 45 years (Late Adulthood)	0	0	6	16,7	30	83,3	36	100		
	Total	0	0	12	17,9	55	82,1	67	100		
Education	D3 Nursing	0	0	9	75,0	3	25,0	12	100	0,000	0,672
	Nurse Profession	0	0	3	5,6	51	94,4	54	100		
	Master of Nursing	0	0	0	0	1	100	1	100		
	Total	0	0	12	17,9	55	82,1	67	100		
Variable		Category Scale		Nurse's Attitude						P Value	r
Variable	Category Scale	Less		Enough		Good		Total			
		n	%	n	%	n	%	n	%		
		n	%	n	%	n	%	n	%		
Age	17 – 25 years (Late Adolescence)	0	0	2	33,3	4	66,7	6	100	0,037	0,761
	26 – 35 years (Early Adult)	0	0	3	12	22	88	25	100		
	36 – 45 years (Late Adulthood)	0	0	8	22,2	28	77,8	36	100		
	Total	0	0	13	19,4	54	80,6	67	100		
Education	D3 Nursing	0	0	8	66,7	4	33,3	12	100	0,001	0,544
	Nurse Profession	0	0	5	9,3	49	90,7	54	100		
	Master of Nursing	0	0	0	0	1	100	1	100		
	Total	0	0	13	19,4	54	80,6	67	100		
Variable		Category Scale		Nurse Competence						P Value	r
Variable	Category Scale	Less		Enough		Good		Total			
		n	%	n	%	n	%	n	%		
		n	%	n	%	n	%	n	%		
Age	17 – 25 years (Late Adolescence)	0	0	4	66,7	2	33,3	6	100	0,389	0,111
	26 – 35 years (Early Adult)	0	0	4	16,0	21	84,0	25	100		
	36 – 45 years (Late Adulthood)	0	0	8	22,2	28	77,8	51	100		
	Total	0	0	16	23,9	51	76,1	67	100		

<b>Education</b>	D3 Nursing	0	0	9	75	3	25	12	100	0,001	0.546
	Nurse Profession	0	0	7	13	47	87	54	100		
	Master of Nursing	0	0	0	0	1	100	1	100		
	Total	0	0	$\frac{1}{6}$	23,9	51	76,1	67	100		
<b>Variable</b>	Category Scale	<b>Nurse Personality</b>							Total	P Value	r
		Less		Enough		Good					
<b>Age</b>	17 – 25 years (Late Adolescence)	0	0	3	50	3	50	6	100	0,002	0,525
	26 – 35 years (Early Adult)	0	0	6	24,0	19	70,6	25	100		
	36 – 45 years (Late Adulthood)	0	0	8	22,2	28	77,8	36	100		
	Total	0	0	$\frac{1}{7}$	25,4	50	74,6	67	100		
<b>Education</b>	D3 Nursing	0	0	9	75	3	25	12	100	0,001	0.520
	Nurse Profession	0	0	8	14,8	46	85,2	54	100		
	Master of Nursing	0	0	0	0	1	100	1	100		
	Total	0	0	$\frac{1}{7}$	25,4	50	74,6	67	100		

Table 4 explains the effect of age and nurse education on nurses' knowledge, attitudes, *competencies*, and *personalit*, which shows that there is a p-value that is useful for showing the influence and the r-value indicates the closeness of the influence and the direction of the correlation. This study shows that the age of the nurse does not have the influence on the knowledge, attitudes, competence, and personality of nurses, is shown from the results of the p value with a value of more than 0.05. Nurse education variable has an influence on nurse factors (knowledge, attitude, competence, and nurse personality) with evidence of value for knowledge p value  $0.000 < 0.05$ , r value 0.672, attitude p value  $0.001 < 0.05$ , r value 0.544, competence p value  $0.001 < 0.05$ , r value 0.525, and personality  $0.001 < 0.05$ , r value 0.520. These results can indicate that nurse education with knowledge of nurses has a strong influence, while education with variables of attitude, competence and personality of nurses, has a moderate influence because p-value  $< 0.05$  and gets an r-value (0.5).

**Table 5** Model Fitting Information

Test Result	-2 Log Likelihood	P value
Intercept Only	42.356	
Final	13.205	.000

The feasibility test of the fit model showed that there was a decrease in the value of -2 log likelihood from the intercept only to the final, namely 42,356 to 13,205 with a significance level of p value of 0.000. This result means that the model with the variables of knowledge, attitude, competence, and personality of nurses provides better accuracy for predicting patient satisfaction.

**Table 6** Goodness of Fit

Test Result	Chisquare	df	P value
Perason	2.900	10	0.984

Table 6 shows a significant value of  $0.984 > 0.05$ . This means that the fit model and the probability value or

the ordinal logistic regression model match the observation data.

**Table 7** Pseudo R-Square

Pseudo R-Square	
<b>Cox and snell</b>	0.353
<b>Nagelkerke</b>	0.520
<b>McFadden</b>	0.384

The results of the Pseudo R-Square provide information on how much the independent variables (knowledge, attitude, competence, and personality of the nurse) are able to explain the dependent variable (patient satisfaction). Table 7 shows the model produced by Cox and Snell, Nagelkerke, and McFadden. The analysis of this study uses the highest R Square value, namely Nagelkerke This means that the independent variables (knowledge, attitude, competence, and personality of nurses) can affect the dependent variable (patient satisfaction) by  $(0.520 \times 100 = 52)$  52% while  $(100-52 = 48)$  another 48% is influenced by variables not examined in this study.

**Table 8** Analysis of Nursing Factors Determination of Patient Satisfaction Care in Islamic Hospitals in December 2021 (n = 134).

Variable Nursing Factor		Patient Satisfaction						Total		P Value	r
		Less		Enough		Good					
Variable	Category Scale	n	%	N	%			n	%		
Nurse Knowledge	Less	0	0	0	0	0	0	0	100	0,002	0,525
	Enough	0	0	8	66,7	4	33,3	12	100		
	Good	0	0	6	10,9	49	89,1	55	100		
	Total	0	0	14	20,9	53	79,1	67	100		
Nurse's Attitude	Less	0	0	0	0	0	0	0	100	0,000	0.676
	Enough	0	0	10	76,9	3	23,1	13	100		
	Good	0	0	4	7,4	53	79,1	54	100		
	Total	0	0	14	20,9	53	79,1	67	100		
Nurse Competence	Less	0	0	0	0	0	0	0	100	0,000	0,573
	Enough	0	0	10	62,5	6	37,5	16	100		
	Good	0	0	4	7,8	47	92,2	51	100		
	Total	0	0	14	20,9	53	79,1	67	100		
Nurse Personaliy	Less	0	0	0	0	0	0	0	100	0.000	0.543
	Enough	0	0	10	58,8	7	41,2	17	100		
	Good	0	0	4	8,0	46	92,0	50	100		
	Total	0	0	14	20,9	53	79,1	67	100		

**Table 9** Odds Ratio Analysis of Nursing Factors on Patient Satisfaction in Islamic Hospitals in December 2021 (n = 134).

	Estimate	Odds Ratio
<b>Nurse Knowledge → Patient Satisfaction</b>	0.656	1,9
<b>Nurse's Attitude → Patient Satisfaction</b>	19.326	24,7
<b>Nurse Competence → Patient Satisfaction</b>	16.946	22,8
<b>Nurse Personality → Patient</b>	1.335	3,7

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### Satisfaction

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The analysis in table 8 and 9 explains the effect of knowledge, attitude, competence, and personality of nurses on patient satisfaction in Islamic hospitals. The nurse's knowledge variable shows a correlation with moderate strength ( $p$  value  $0.002 < 0.05$ ;  $r$  value  $0.525$ ) and shows the odds ratio or OR of nurse knowledge to patient satisfaction is 1.9 times, this means that nurse knowledge can increase patient satisfaction by 1.9 times greater than the other factors. The nurse's personality variable shows a correlation with a strong correlation strength ( $p$  value  $0.000 < 0.05$ ;  $r$  value  $0.676$ ) and shows an OR value of 24.7 times, or it can be said that the nurse's personality is able to increase patient satisfaction 24.7 times greater than other variables. The next analysis shows the effect of the nurse competence variable on patient satisfaction with moderate correlation strength ( $p$  value  $0.000 < 0.05$ ;  $r$  value  $0.573$ ), and shows an OR value of 22.8 times, this result means that nurse competence can increase patient satisfaction 22.8 times. Greater than other indicators, and the last analysis shows the relationship of the nurse's personality with moderate correlation strength ( $p$  value  $0.000 < 0.05$ ;  $r$  value  $0.543$ ) with an OR of 3.7 times, or it can be said that the nurse's personality can increase patient satisfaction 3, 7 times compared to other factor.

#### 4. Discussion

This study shows that the age of the majority of nurses is 36–45 years old, or classified as late adulthood by as many as 36 nurses (53.7%). The age of nurses in this study showed no effect on the knowledge, attitudes, competence, and personality of nurses. This result is in line with the results of other studies which show that age has no effect on attitudes [10]. Another study that has the same direction as the results of this study is a study of factors that affect nurse competence in emergencies.

The results of this study found that age has no effect on knowledge and competence of nurses or nurse performance [3]. The performance of nurses is not influenced by age. This is because age is not the only factor that affects performance, and everyone has different fundamental characteristics. Besides that, the performance of nurses is influenced by psychological factors, work experience, training, and education, so that an older age does not necessarily have a better performance than other nurses who have a younger age. The results in this study also show that education has a significant influence on the knowledge, attitudes, competencies, and personality of nurses, with the strongest influence, namely, education on nurses' knowledge. These results are in line with research that shows nurse education can affect nurses' knowledge and skills [27]. The effect of nurse education on nurses' knowledge, attitudes, competencies, and personalities can occur because nurse education is the basis for developing nurse competencies, because through education, nurses can gain the theoretical knowledge needed in clinical practice, and the knowledge gained can be applied to clinical practice to improve the competence of nurses and nurses' attitudes [22].

The attitude of the nurse and the personality of the nurse in this study were also influenced by the education of the nurse, because there is an integral relationship between patients and nurses with their respective emotions in the nursing care process, nursing education prepares students to handle their emotions and patients, so that when clinically nurses are able to behave and control emotions in dealing with patients well [6]. The teaching of emotional control, attitude and knowledge improvement in nursing education is why the level of nurse education is able to influence the knowledge, attitude, competence and personality of nurses.

The next result explored in this study is that patient satisfaction is influenced by nurses' knowledge and is able to increase patient satisfaction by 1.9 times greater than other factors, and knowledge in this study is also influenced by nurse education. The fact that the results of this study are in line with research shows that



patient satisfaction can be increased through nurse education [28]. Nurse knowledge can increase patient satisfaction because in providing nursing care, nurses interact actively with patients to identify patient needs. Nurses who have a high level of knowledge can identify patient needs as a whole, so that patients feel that nurses are able to provide optimal health services beyond expectations [17].

Patient feelings that exceed initial expectations in receiving nursing services are patient satisfaction [7]. The feeling of satisfaction that is influenced by the knowledge explored in this study can occur because the majority of nurses in this study have good knowledge. A good level of knowledge from nurses causes nurses to be able to explain nurses' health problems to patients well, and nurses can then find nursing problems for patients effectively. and provide responsive and appropriate treatment and good nursing services that cause patients to feel satisfied [29].

Further exploration in this study shows that satisfaction is strongly influenced by nurses' attitudes, with an odds ratio of 24.7 times, meaning that a good nurse's attitude can increase satisfaction 24.7 times compared to other factors. The results of the OR attitude of nurses became the highest OR in this study when compared to other factors. Other results that are in line with the results of this study are the results of other studies related to patient satisfaction from nurse interactions with outpatients during nursing care, which show there is a relationship. The relationship between nurses' attitudes and patient satisfaction can be formed because nurses interact more often with patients to find patient needs [13].

The needs of patients must be studied in depth by nurses because nurses must have a deep interest and show skills to observe carefully, and also have the attitude to respond directly to patient needs and be able to quickly resolve them [17]. Nurses who are professional and responsive can increase patient satisfaction [8]. The attitudes of good nurses represent the majority of nurses' attitudes in the findings of this study. This fact causes attitudes to have the greatest influence on determining patient satisfaction. These results are in accordance with the patient satisfaction process, which is a subjective assessment that represents cognitive and emotional responses triggered by comparisons of expectations with perceived nursing care and with good nurse attitudes during interactions, making patients feel that nurses are able to respond to problems quickly and meet patient needs holistically [15].

This study also shows the results that nurse competence has a significant effect on patient satisfaction with an OR value of 22.8. This means that nurse competence is able to increase patient satisfaction by 22.8 times greater than other factors, and competence is the strongest factor by two after the personality of the nurse. The results of this study are in line with studies which show that competence has a relationship with nurse performance [26]. Competence becomes a dimension of task action, where these actions are used by nurses to complete tasks and provide satisfaction to patients. This happens because competence is also a fundamental determinant of a nurse's performance [4]. The performance of nurses in providing nursing care can affect patient satisfaction, as evidenced in a correlative study which shows that nurse performance has an influence on patient satisfaction [24].

Patient satisfaction is 22.8 times more influenced by the competence of nurses. This is a fact for hospitals to increase patient satisfaction. With the competence of nurses to be good, this must be considered by the hospital because if the hospital wants to expand or enlarge, the hospital must improve the quality of service because the evidence of good hospital quality is patient satisfaction. Hospitals that want to increase patient satisfaction must make the competency factor of nurses one of the keys that should not be missed [1]. The competence of the majority of nurses in this study was good, this good competence led to good nurse performance and exceeded patient expectations so that patients were satisfied with nursing services.

The latest exploration in this study shows that patient satisfaction is significantly influenced by the personality of the nurse, the OR value indicates that the nurse's personality can increase patient satisfaction 3.7 times compared to other factors. Personality is one of the factors that influence the work of nurses, such as providing holistic services, the performance of nurses who are able to meet patient needs as a whole, which can make patients feel satisfied with nursing services [11].

Nursing services become action through the reciprocal relationship between nurses and patients. A good nurse's personality becomes the basis for nurses to understand the patient's situation accurately. Nurses who have a good personality can always care about patients and help make patients feel comfortable in various situations. The caring hope of nurses can help understand patients and provide emotional support, which causes patients to feel satisfied with nurse services [17]. The personality of the nurse has an impact on patient satisfaction because when carrying out nursing care, nurses who have a good personality will treat patients with care and affection, which is reflected in the speech and body language of nurses and nurses who always strive to understand and care about their needs. patient health care [5].

Hospitals, as health care providers, are a complex and rapidly growing field globally, with ever-increasing expectations of quality [2]. Hospital competition and expectations that continue to increase are a challenge for hospitals as health service providers to continue to strive to meet patient expectations so that they can provide patient satisfaction because patient satisfaction is a multifaceted health construction that is influenced by education, the ability of nurses to provide client-centered care., attitude, personality, and competence in dealing with health problems [14]. Exploration of the results of this study shows that education has a significant influence on the four factors of nurses, namely knowledge, attitudes, competence, and personality, and the four factors of nurses have a significant influence in determining patient satisfaction. This means that the results of this study exploration could be a breakthrough in new strategies for hospitals in expanding their wings by increasing the knowledge, attitudes, competencies, and personalities of nurses, which are key factors in determining patient satisfaction.

## **5. Conclusion**

The key strategy to expand the hospital is to increase the four nurse factor indicators, namely the knowledge, attitude, competence, and personality of nurses, which are proven to have a significant influence in increasing patient satisfaction, and the strongest influence is the personality of nurses, so that to improve the quality of services, the hospital can provide training to improve the personality of nurses. The next strategy is that the hospital in recruiting nurses must pay attention to the level of education because nurse education has a significant influence on the four nurse factor indicators, namely knowledge, attitude, competence, and personality. Hospitals that want to spread their wings can apply the key strategies in this study.

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