



Related Factors to Patient Satisfaction on Meningococcal Meningitis Vaccine Services at Palembang Class II Port Health Office

Novy Stevani Pratiwi¹, Mustika Fatimah^{2*}, Rina SE Sitindaon³, Ririn Noviyanti Putri⁴

^{1,2,3,4}Health Faculty, Kader Bangsa University, Jl. Mayjen HM Ryacudu No.88 7 Ulu, Palembang, Indonesia

¹Palembang Class II Port Health Office, Jl Letjen Harun Sohar - Tjg Api Api, Palembang, Indonesia

²Ar Rasyid Hospital, Jl. HM. Saleh, Km.7, Palembang, Indonesia

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ABSTRACT

The implementation of international vaccination is one of the government's efforts to provide public protection through control of certain diseases in certain situations carried out at health facilities that organize international vaccination services. Health services quality should fulfill patient satisfaction because patient satisfaction is very important in assessing that quality. The purpose of this study was to determine the relationship between some factors such as age, gender, education, working, income, effective, patient-oriented, timely, and fair dimension with patient satisfaction on Meningococcal Meningitis Vaccination services at the Palembang Class II Port Health Office. This research uses an analytic research with cross sectional research design on 100 samples. The results showed that there was no relationship between age, gender, education and income while there was a relationship between working, effective, patient-oriented, timely and fair dimension with patient satisfaction. It is hoped that the results of this study can be used as evaluation material, especially in the quality of Meningococcal Meningitis Vaccination services at the Palembang Class II Port Health Office.

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Corresponding Author:

Mustika Fatimah,
Health Faculty,
Kader Bangsa University,
Jl. Mayjen HM Ryacudu No.88 7 Ulu, Palembang 30253, Indonesia.
Email: fatimahmustika271214@gmail.com

1. Introduction

The implementation of international vaccination is one of the government's efforts to provide public protection through control of certain diseases in certain situations such as in preparation for the departure of prospective Hajj / Umrah pilgrims, preparation for travel to or from endemic countries, and conditions of extraordinary events / outbreaks of certain diseases in a country (KemenkesRI, 2019). Based on the Circular Letter of the Indonesian Ministry of Health Number HK.02.02/C.1/9325/2022 concerning the Implementation of Meningitis Vaccination for Hajj and Umrah Pilgrims, the implementation of international vaccination is carried out based on request from the traveler destination country with certain considerations. According to a diplomatic note from the Embassy of the Kingdom of Saudi Arabia dated November 7, 2022 and a letter from the Ministry of Foreign Affairs number 211-1246, it has been conveyed that meningitis vaccination is an obligation for those who come to the Kingdom of Saudi Arabia using a Hajj visa and is not a requirement for those who come using an Umrah visa. For Umrah pilgrims who have comorbidities, it is highly recommended to carry out

Meningococcal Meningitis vaccination and other vaccinations at health facilities that organize International vaccination services (KemenkesRI, 2022).

Health services must have good quality standards. Quality services should meet patient satisfaction and quality, because patient satisfaction is very important in assessing the quality of health services (Erviainingsih, et al., 2020). WHO developed a health service quality framework through a health service quality dimension approach, namely health services that are effective, efficient, accessible, acceptable / patient-focused, fair and safe. The dimensions of the quality of health services then developed into seven dimensions, namely effective, safe, patient-oriented / service users (people-centred), timely, efficient, equitable and integrated (integrated) (KemenkesRI, 2022).

Previous research related to the analysis of factors related to the quality of health services on patient satisfaction, one of which is Ulfa Mutmainah (2021) provides the results of the relationship between service quality (effectiveness, comfort, safety, human relations, continuity and timeliness) on patient satisfaction at Wahidin Sudirohusodo Hospital, Makassar City (Mutmainnah, Ahri, & Arman, 2021). The results of research by Dwi Kristin Natasia (2022) at the Sulamu Health Center, Kupang Regency stated that there was a picture between the quality of health services and patient satisfaction with the dimensions of efficiency, timeliness and integration (Natasia, 2022).

Followed by Yecy Anggreny's research (2022) regarding the relationship between health worker services and the level of community satisfaction in vaccination activities at the Payung Sekaki Health Center, the results obtained are that the dimensions of effectiveness, efficiency, access, patient orientation, fairness and safety have a relationship with the level of community satisfaction in vaccination activities at the Payung Sekaki Health Center with the fair dimension being the most influential factor on community satisfaction (Anggreny, Sari, & Niriyah, 2022). In a study analyzing the completeness of logistics and staffing with the quality of service for Umrah pilgrims in the Meningitis vaccination service conducted at the Surabaya Class I Port Health Office Wilker Gresik by Dyah Puspita Rachmawati (2020), it was found that one of the factors affecting the quality of meningitis vaccination services is the facilities and infrastructure factors needed to support the vaccination services of Umrah pilgrims, including parking lots, waiting rooms and toilets (Rachmawati, 2020).

According to Firman Gusmawan, et al (2019) in addition to factors related to health service management, patient satisfaction can also be influenced by the sociodemographic characteristics of the patient himself. Although the quality of service obtained is the same. This depends on the patient's sociodemographic background such as age, gender, education level, income and distance traveled (Gusmawan, Haryadi, & Sutrisna, 2019). Meanwhile, according to Efriani, et al (2022) patient characteristics are characteristics that are needed by each patient to distinguish them from other patients which include gender, age, education, occupation, income and economic status as well as the source of medical expenses (Efriani, Dewi, & Marfuati, 2022).

This study aims to determine the relationship between age, gender, education level, working, income, effective dimensions, patient-oriented dimensions, timely dimensions, and fair dimensions with patient satisfaction with meningococcal meningitis vaccination services at the Palembang Class II Port Health Office in 2023. It is hoped that this research regarding the relationship between health service dimensions and patient satisfaction will provide additional information regarding aspects that must be evaluated and improved when assessing patient satisfaction with health services.

2. Method

This research is an analytic study with a cross sectional research design, where the research is carried out by collecting data on the independent variable and the dependent variable together or at once (Notoatmodjo, 2010). Through this study, data were obtained regarding factors associated with the level of satisfaction of meningococcal meningitis vaccination patients at the Palembang Class II Port Health Office.

The independent variables in this study were respondent characteristics (age, gender, education, working, and income), and dimensions of health service quality (effective, patient-oriented, timely, and fair). While the dependent variable is patient satisfaction.

The population in this study were all patients at the meningococcal meningitis vaccination service at the Palembang Class II Port Health Office. Sampling was done by accidental sampling. Accidental sampling is done by taking respondents who happen to be there or available somewhere in accordance with the research context (Notoatmodjo, 2010). Based on the sample calculation using the Slovin formula, the number of samples examined was 100 patients with meningococcal meningitis vaccination.

Data collection using primary data obtained from the results of distributing questionnaires conducted on meningococcal meningitis vaccination patients at the Palembang Class II Port Health Office. And secondary data is data obtained from the Class II Palembang Port Health Office regarding the level of satisfaction of meningococcal meningitis vaccination patients.

Data analysis used univariate analysis and bivariate analysis. Univariate analysis aims to explain or describe the characteristics of each research variable. The form of univariate analysis depends on the type of data. For numerical data, mean or average, median and standard deviation values were used. Bivariate analysis was conducted on two variables that were thought to be related or correlated (independent variable and dependent variable) (Notoatmodjo, 2010).

3. Results And Discussions

Univariate Analysis

This study was conducted on 100 patients. The results showed that 56 patients (56%) were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office, while patients who were not satisfied with the Meningococcal Meningitis Vaccination service were 44 patients (44%).

Table 1.
Frequency Distribution of Independent Variables and Dependent

No	Research Variables	Total	Percentage (%)
1	Age		
	1. Productive (15-64 Years)	84	84
	2. Non-productive (>64 Years)	16	16
2	Gender		
	1. Male	34	34
	2. Female	66	66
3	Education		
	1. High (university, high school)	86	86
	2. Low (junior high school, elementary school, not in school)	14	14
4	Work		
	1. Work	55	55
	2. Not working	45	45
5	Income		
	1. High (> provincial minimum wage)	45	45
	2. Low (\leq provincial minimum wage)	55	55
6	Effectuve Dimention		
	1. Effective	56	56
	2. Ineffective	44	44
7	Patient-oriented Dimension		
	1. Oriented	72	72
	2. Not Oriented	28	28
8	Timely Dimension		
	1. On time	65	65
	2. Not on time	35	35
9	Fair Dimension		
	1. Fair	68	68

	2. Unfair	32	32
10	Patient Satisfaction		
	1. Satisfied	56	56
	2. Not satisfied	44	44

Data source : research results

Bivariate Analysis

Table 2
Relationship between Independent Variables and Dependent Variables

No	Independent Variable	Satisfaction Patient				Total		ρ -value	OR (95% CI)
		Not Satisfied n	%	Satisfied n	%	N	%		
1	Age								
	1. Productive	39	46,4	45	53,5	84	100	0,262	0,524 (0,168-1,641)
	2. Non-productive	5	31,2	11	68,8	16	100		
2	Gender								
	1. Male	15	44,1	19	55,9	34	100	0,986	0,993 (0,431-2,285)
	2. Female	29	43,9	37	56,1	66	100		
3	Education								
	1. High	38	44,2	48	55,8	86	100	0,926	0,947 (0,303-2,965)
	2. Low	6	42,9	8	57,1	14	100		
4	Work								
	1. Work	31	56,4	24	43,6	55	100	0,006	0,315 (0,136-0,726)
	2. Not working	13	28,9	32	71,1	45	100		
5	Income								
	1. High	24	53,3	21	46,7	45	100	0,089	0,500 (0,224-1,116)
	2. Low	20	36,4	35	63,6	55	100		
6	Effectuve Dimention								
	1. Effective	13	23,2	43	76,8	56	100	0,000	7,888 (3,217-19,338)
	2. Ineffective	31	70,5	13	29,5	44	100		
7	Patient-oriented Dimension								
	1. Oriented	26	36,1	46	63,9	72	100	0,011	3,185 (1,281-7,915)
	2. Not Oriented	18	64,3	10	35,7	28	100		
8	Timely Dimension								
	1. On time	21	32,3	44	67,7	65	100	0,001	4,016 (1,682-9,588)
	2. Not on time	23	65,7	12	34,3	35	100		
9	Fair Dimension								
	1. Fair	19	27,9	49	72,1	68	100	0,000	9,211 (3,417-24,824)
	2. Unfair	25	78,1	7	21,9	32	100		

Data source : research results

The Relationship between Age and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on the results of the research that has been done, it is known that the age of productive patients (15-64 years) feel the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office is satisfied as many as 45 patients with a percentage of 53.6% and for non-productive age (>64 years) patients who feel the Meningococcal Meningitis Vaccination service is satisfied as many

as 11 patients with a percentage of 68.8%. The results of the statistical test obtained a p -value = 0.262 this result is greater than the p -value = 0.05 so it can be concluded that there is no relationship between age and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. This research is in line with the research of Ikbil Munawir (2018) where the results of the study obtained a p -value of 1.000 means $p > 0.05$, this indicates that there is no significant relationship between age and patient satisfaction (Munawir, 2018).

Age is the length of time lived since birth (Kartanegara, 2002). According to Firman Gusmawan, et al (2019) in addition to factors related to health service management, patient satisfaction can also be influenced by the sociodemographic characteristics of the patient himself. Although the quality of service obtained is the same. This depends on the patient's sociodemographic background such as age, gender, education level, income and distance traveled (Gusmawan, Haryadi, & Sutrisna, 2019).

The results of the study did not find a relationship between age and patient satisfaction, this is possible because every patient who comes to the Class II Palembang Port Health Office to get meningococcal meningitis vaccination services, both productive and non-productive ages, expects the same service, and gets good treatment from every health care worker. This is reinforced by Pender's theory (1982) that health is an actualization (embodiment) obtained by individuals through satisfaction in relating to others, goal-appropriate behavior, competent self-care (Irwan, 2017).

The Relationship between Gender and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on the research that has been conducted, it is known that the results obtained are male patients as many as 19 patients with a percentage of 55.9% are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office and female patients who feel satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 37 patients with a percentage of 56.0%. The results of the statistical test obtained a p -value = 0.986 this result is greater than the p -value = 0.05 so it can be concluded that there is no relationship between gender and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The results of this study are in line with research conducted by Efriani et al (2022), namely the assessment of patient satisfaction is not influenced by gender, education and occupation ($p > 0.05$) (Efriani, Dewi, & Marfuati, 2022). And also in line with research by Widiyanti et al (2019) where there is no significant relationship between gender and patient satisfaction ($p = 0.818$) (Widiyanti, Handiyani, & Novieastari, 2019).

Sex is the biological difference between men and women related to their reproductive organs and functions (Siti, 2016). According to Firman Gusmawan, et al (2019) in addition to factors related to health service management, patient satisfaction can also be influenced by the sociodemographic characteristics of the patient himself. Although the quality of service obtained is the same. This depends on the patient's sociodemographic background such as age, gender, education level, income and distance traveled (Gusmawan, Haryadi, & Sutrisna, 2019).

Based on this study, there was no relationship between gender and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Class II Palembang Port Health Office so it can be concluded that gender differences do not affect the level of patient satisfaction, this is because satisfaction is the expectation of every patient so that they are entitled to get satisfactory service without distinguishing between men and women. This assumption is reinforced by Hidayati (2014) where health services provide good service by not differentiating between one patient and another so that patients feel the same satisfaction (Hidayati, Suryawati, & Sriatmi, 2014).

The Relationship between Education and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on research that has been conducted using bivariate analysis, it is found that patients with high education (College, High School) are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 48 patients with a percentage of 55.8% and patients with low education (junior high school, elementary school, and not in school) who are

satisfied with the Meningococcal Meningitis Vaccination service as many as 8 patients with a percentage of 57.1%. The results of the statistical test obtained a p -value = 0.926 this result is greater than the p -value = 0.05 so it can be concluded that there is no relationship between education and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. This is in line with the research of Efriani et al (2022), namely the assessment of patient satisfaction is not influenced by gender, education and occupation ($p > 0.05$) (Efriani, Dewi, & Marfuati, 2022). And this study is also in line with the research of Widiyari et al (2019), namely the results show that there is no significant relationship between patient education and patient satisfaction, with a total of 66.9% expressing satisfaction in non-college patients ($p = 0.949$) (Widiyari, Handiyani, & Novieastari, 2019).

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state (PresidenRI, 2003). According to Firman Gusmawan, et al (2019) in addition to factors related to health service management, patient satisfaction can also be influenced by the sociodemographic characteristics of the patient himself. This depends on the patient's sociodemographic background such as age, gender, education level, income and distance traveled (Gusmawan, Haryadi, & Sutrisna, 2019). The higher the education, the more critical it will be in assessing something including satisfaction in health services.

In this study, there was no significant relationship between education and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that high or low education does not affect the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office, because every patient has the expectation to be served equally without differentiating the patient's education level. This assumption is reinforced by Hidayati (2014) where health services provide good service by not differentiating between one patient and another so that patients feel the same satisfaction (Hidayati, Suryawati, & Sriatmi, 2014).

The Relationship between Working and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on research that has been conducted using the results of bivariate analysis, it is known that patients who work are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 24 patients with a percentage of 43.6% and patients who do not work are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 32 patients with a percentage of 71.1%. The results of the statistical test obtained a p -value = 0.006 this result is smaller than the p -value = 0.05 so it can be concluded that there is a relationship between work and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The Odds Ratio value is 0.315 (0.136-0.726) which indicates that patients who work are 0.315 times more likely to feel satisfied with the meningococcal meningitis vaccination service compared to patients who do not work.

This is in line with the research of Yeni Tri Utami (2018), namely the decision-making process to benefit from various health services can be directly influenced by individual (patient) characteristics, psychological factors, or indirectly by social and cultural factors. Patient characteristics are characteristics that are needed by each patient to distinguish them from other patients, including gender, age, education, occupation, income and economic status and source of medical expenses. There is an influence between the patient's working status on the assessment of service quality and is statistically significant ($p=0.025$) (Utami, 2018).

Work is an activity that must be done primarily to support personal and family life. Work is done to generate income (Pakpahan, et al., 2021). Patients who have a job are likely to have better information about goods or services so that they have demands for goods or services that are better than what they get (Utami, 2018).

In this study, it was found that there was a relationship between work and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients who do not work have a higher level of satisfaction than patients who work. Because patients who work have higher expectations than those who do not work.

The Relationship between Income and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on the results of the research that has been done, it is found that patients with high income ($>$ provincial minimum wage) are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 21 patients with a percentage of 46.7% and patients with low income (\leq provincial minimum wage) are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 35 patients with a percentage of 63.6%. The results of the statistical test obtained a p -value = 0.089 this result is greater than the p -value = 0.05 so it can be concluded that there is no relationship between income and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. This study is in line with the research of Efriani et al (2022) regarding the relationship between characteristics (gender, education and occupation) which gave results that did not have a significant relationship ($p > 0.05$) (Efriani, Dewi, & Marfuati, 2022). And also in line with the research of Yeni Tri Utami (2018) there is no influence between patient income on service quality assessment and statistically significant ($p = 0.843$) (Utami, 2018).

Income is the result of work or business that earns income in the form of money or goods from salaries, interest, profits, and rent (Kartanegara, 2002). In this study, it was found that most patients had incomes below and equal to the provincial minimum wage as many as 55 patients (55%) and patients who had incomes above the provincial minimum wage were 45 patients (45%). According to Firman Gusmawan, et al (2019) in addition to factors related to health service management, patient satisfaction can also be influenced by the sociodemographic characteristics of the patient himself. Although the quality of service obtained is the same. This depends on the patient's sociodemographic background such as age, gender, education level, income and distance traveled (Gusmawan, Haryadi, & Sutrisna, 2019).

In this study, it was found that there was no relationship between income and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients with high and low income have the same expectations for good health services. This is reinforced by Pender's theory (1982) that health is an actualization (embodiment) obtained by individuals through satisfaction in relating to others, goal-appropriate behavior, competent self-care (Irwan, 2017).

The Relationship between Effective Dimensions and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on the results of the study, it was found that patients who felt that the service was effective were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 43 patients with a percentage of 76.8% and patients who did not feel effective but were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 13 patients with a percentage of 29.5%. The results of the statistical test obtained a p -value = 0.000 this result is smaller than the p -value = 0.05 so it can be concluded that there is a relationship between the effective dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The Odds Ratio value is 7.888 (3.217-19.338) which indicates that patients who feel the service is effective are 7.888 times more likely to feel satisfied with the meningococcal meningitis vaccination service compared to patients who feel the service is ineffective.

This is in line with previous research related to the analysis of factors related to the quality of health services on patient satisfaction, one of which is Ulfa Mutmainah (2021) which provides the results of the relationship between service quality (effectiveness, comfort, safety, human relations, continuity

and timeliness) on patient satisfaction at Wahidin Sudirohusodo General Hospital, Makassar City. The statistical test results show that there is a relationship between the effectiveness of officer services and service quality ($p = 0.000$) (Mutmainnah, Ahri, & Arman, 2021).

The effective dimension is providing evidence-based health services to the community (KemenkesRI, 2022). In this study, it was found that there was a relationship between the effective dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients who feel the service is effective will feel more satisfied than patients who feel the service is not effective. This is because the effective dimension is part of service quality which is one of the factors that affect patient satisfaction.

The Relationship between Patient-Oriented Dimension and Patient Satisfaction on Meningococcal Meningitis Vaccination Service at the Palembang Class II Port Health Office

Based on the results of the study, it is known that patients who feel that the service is patient-oriented are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 46 patients with a percentage of 63.9% and patients who feel that the services provided are not patient-oriented but are satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 10 patients with a percentage of 35.7%. The results of the statistical test obtained a p -value = 0.011 this result is smaller than the p -value = 0.05 so it can be concluded that there is a relationship between the patient-oriented dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The Odds Ratio value is 3.185 (1.281-7.915) which indicates that patients who feel the service is patient-oriented are 3.185 times more likely to feel satisfied with the meningococcal meningitis vaccination service compared to patients who feel the service is not patient-oriented.

This research is in line with Ulfa Mutmainah's research (2021), namely the relationship between service quality (effectiveness, comfort, safety, human relations (patient-oriented), continuity and timeliness) and patient satisfaction at Wahidin Sudirohusodo Hospital, Makassar City. The statistical test results show that there is a relationship between human relations (patient-oriented) and service quality ($p = 0.000$) (Mutmainnah, Ahri, & Arman, 2021). The better the quality of service obtained, the higher the level of patient satisfaction. Furthermore, this study is also in line with previous research conducted by Yecy Anggreny (2022) regarding the relationship between health worker services and the level of community satisfaction in vaccination activities at the Payung Sekaki Health Center, the results obtained are that the dimensions of effectiveness, efficiency, access, patient-oriented, fairness and safety have a relationship with the level of community satisfaction in vaccination activities at the Payung Sekaki Health Center ($p = 0.000$) (Anggreny, Sari, & Niriayah, 2022).

Oriented to patients/service users (people-centred) is providing services that are in accordance with individual preferences, needs and values (KemenkesRI, 2022). In this study, it was found that there was a relationship between the patient-oriented dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients who feel that the service is patient-oriented will feel more satisfied than patients who feel that the service is not patient-oriented. If the patient-oriented dimension has been fulfilled in health services, the higher the level of patient satisfaction will be. This is because the patient-oriented dimension is part of the quality of service which is one of the factors that affect patient satisfaction.

The Relationship between Timely Dimension and Patient Satisfaction on Meningococcal Meningitis Vaccination Service at the Palembang Class II Port Health Office

Based on the results of the study, it was found that patients who felt that the service was on time who were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office were 44 patients with a percentage of 67.7% and patients who felt that the service provided was not on time but were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office were 12 patients with a percentage of 34.3%. The results of the

statistical test obtained a p -value = 0.001 this result is smaller than the p -value = 0.05 so it can be concluded that there is a relationship between the timely dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The Odds Ratio value is 4.016 (1.682-9.588) which indicates that patients who feel the service is on time are 4.016 times more likely to feel satisfied with the meningococcal meningitis vaccination service compared to patients who feel the service is not on time.

This is in line with previous research related to the analysis of factors related to the quality of health services on patient satisfaction conducted by Ulfa Mutmainah (2021) based on the results of the study obtained that the variable associated with the quality of health services on patient satisfaction at Wahidin Sudirohusodo Hospital, Makassar City is timeliness ($p = 0.000$) (Mutmainnah, Ahri, & Arman, 2021).

The dimension of timeliness is to reduce waiting time and delays in providing health services (KemenkesRI, 2022). In this study, it was found that there was a relationship between the timely dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients who feel that the service is on time will feel more satisfied than patients who feel that the service is not on time. When the service process provided meets the dimensions of being on time, the level of patient satisfaction will be higher. This assumption is supported by Dwi Kristin Natasia (2022). The timely dimension must be available in a timely manner when the patient needs it. Services are easy and become fast in the process so that the services received are fast and straightforward (Natasia, 2022).

The Relationship between the Fair Dimension and Patient Satisfaction on Meningococcal Meningitis Vaccination Services at the Palembang Class II Port Health Office

Based on the results of the study, the results of bivariate analysis showed that patients who felt the service was fair were satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 49 patients with a percentage of 72.1% and patients who felt the service provided was not fair but felt satisfied with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office as many as 7 patients with a percentage of 21.9%. The results of the statistical test obtained a p -value = 0.000 this result is smaller than the p -value = 0.05 so it can be concluded that there is a relationship between the fair dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. The Odds Ratio value is 9.211 (3.417-24.824) which indicates that patients who feel the service is fair are 9.211 times more likely to feel satisfied with the meningococcal meningitis vaccination service compared to patients who feel the service is unfair.

This is in line with Yecy Anggreny's research (2022) regarding the relationship between health worker services and the level of community satisfaction in vaccination activities at the Payung Sekaki Health Center, the results obtained are that the dimensions of effectiveness, efficiency, access, patient-oriented, fairness and safety have a relationship with the level of community satisfaction in vaccination activities (p -value = 0.000) at the Payung Sekaki Health Center, with the fair dimension being the most influential factor on community satisfaction (Anggreny, Sari, & Niriya, 2022).

The fair dimension is providing uniform services without discriminating against gender, tribe, ethnicity, place of residence, religion, and socio-economic status (KemenkesRI, 2022). In this study, it was found that there was a relationship between the fair dimension and the level of patient satisfaction with the Meningococcal Meningitis Vaccination service at the Palembang Class II Port Health Office. It can be concluded that patients who feel the service is fair will feel more satisfied than patients who feel the service is not fair. If the fair dimension of health services has been fulfilled, the level of patient satisfaction will increase. This is also supported by Anggreny (2022) it is a right for patients to get the same health services as every patient who comes to a health care facility (Anggreny, Sari, & Niriya, 2022).

4. Conclusion

Measuring the patient satisfaction is absolutely necessary in efforts to improve the quality of health services. Through these measurements, it can be seen to what extent the quality dimensions of health services that have been provided can meet patient expectations.

The results showed that there was no relationship between age, gender, education and income while there was a relationship between working, effective dimension, patient-oriented dimension, timely dimension and fair dimension with the level of patient satisfaction in Meningococcal Meningitis vaccination services at the Palembang Class II Port Health Office. It is hoped that the results of this study can be taken into consideration in conducting evaluations, especially in the quality of meningococcal meningitis vaccination services.

It is also hoped that further research can take the form of further analysis using a multivariate method so that the determinants of patient satisfaction can be determined from dimensions of health services that are different from many other previous studies, then sharpen it with a case control method to be more certain of the cause and effect relationship, then it can also be a qualitative descriptive method involving stakeholders related to health services in the same or other health service facilities.

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