



PRIMARY RESEARCH

Analysis of factors related to utilization of clinical pathology laboratory services in outstanding patients of Banjarbaru Idaman regional hospital

Muhammad Akbar Ramadhan ^{1*}, Syamsul Arifin², Eko Suhartono³, Bahrul Ilmi ⁴,
Meitria Syahadatina Noor ⁵

¹ Idaman Hospital, Banjarbaru, South Kalimantan, Indonesia

^{1,3,5} Public Health Study Program, Magister Program, Faculty of Medicine, Lambung Mangkurat University, Banjarbaru, Indonesia

⁴ Poltekkes of Indonesian Health Ministry, Banjarmasin, South Kalimantan, Indonesia

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Abstract

Data in 2019 showed the number of laboratory visits for outpatients as many as 9569 visits; in 2020, there were 3192 visits. General patient laboratory visits in 2020 decreased by 6,377 visits compared to 2019. The number of outpatient laboratory visits from 2021 to October 2021 was 2242; visits decreased by 950 compared to data in 2020. The problem is caused by several factors, namely gender, age, patient service dissatisfaction factor, Covid-19 pandemic factor, mileage factor, health-ill perception factor, physical evidence factor, reliability, and responsiveness factor. Analyzing factors related to age, gender, perception of health and illness, Tangibles, reliability, and responsiveness in the Utilization of Clinical Pathology Laboratory Services for Outpatients at Idaman Regional Hospital Banjarbaru. The researcher used a quantitative method with an observational research design and a cross-sectional approach at the clinical pathology laboratory at Idaman Hospital, Banjarbaru City, in March 2022. The sample was determined using purposive sampling with a total of 110 respondents. The study results were data analysis using descriptive analysis, statistical analysis with Chi-square test, and multiple logistic regression analysis. The results of the analysis with Chi-Square showed the variable p values of age factor ($p = 0.007$), sex factor ($p = 0.000$), health-sick perception factor ($p = 0.880$), tangibles factor ($p = 0.000$), reliability factor ($p = 0.525$) and responsiveness factor ($p = 0.000$). The results of the analysis with multiple logistic regression showed the values of p and Exp B age variables ($p = 0.042$, Exp $B = 3.189$), sex variables ($p = 0.000$, Exp $B = 8.188$), tangibles variables ($p = 0.000$, Exp $B = 11.878$) and responsiveness ($p = 0.010$, Exp $B = 5.150$). There is a significant relationship between age, gender, tangibles, and responsiveness with services at the outpatient clinical pathology laboratory at the Idaman Regional Hospital Banjarbaru. There is no significant relationship between the perceived health-illness variables and reliability with the utilization of services at the outpatient clinical pathology laboratory at the Idaman Regional Hospital Banjarbaru. The most dominantly related variable is Tangibles.

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INTRODUCTION

Service to the laboratory in Law Number. 32 of 1992 listed in the health care system cannot be separated from health care efforts in totality. For the Regulation of the Minister of Health of the Republic of Indonesia Number. 411/MENKES/PER/III/2010, a clinical pathology labora-

tory is a health laboratory conducting clinical specimen checking services to obtain data on the most important individuals to support efforts to diagnose diseases, treat diseases, and restore health (Kementerian Kesehatan, 2010). Based on preliminary data, it was obtained that the number of utilization of health services in patients to clinical pathol-

*corresponding author: Muhammad Akbar Ramadhan

†email: toteles2001@gmail.com



ogy laboratories is good, but if we look at the patient visit data based on the way of payment of patients who use the laboratory sharing two, namely bpjs patients and general patients. Data in 2019 obtained the number of laboratory visits of general outpatient patients as many as 9569 visits, and in 2020 as many as 3192 visits. This means that general patient laboratory visits in 2020 decreased by 6,377 visits compared to 2019. The number of outpatient laboratory visits from 2021 to October 2021 was 2242; this visit also decreased by 950 compared to data in 2020. Based on the description above, the problem is intended to be used as interesting research material for research on the use of outpatient services at Idaman Banjarbaru Hospital. The problem is caused by several factors, namely gender factors, age factors, patient service dissatisfaction factors, Covid-19 pandemic factors, mileage factors, health-sick perception factors, physical evidence factors, reliability factors, and responsiveness (Ahmad-Ur-Rehman, Haq, Jam, Ali, & Hijazi, 2010; Jam, Singh, Ng, Aziz, et al., 2018).

Sourced from the results of previous research by (Ulfa, Kuswardinah, & Mukarromah, 2017; Naidoo, 2015), Perception of Healthy-Sick Prolonged obtained Totality statistics displaying a signification of 0.048 so that it can be concluded that the perception of healthy-sick influences the prolonged use of maternal health services.

Sourced from early information from Idaman Banjarbaru Hospital, there is a shortage of laboratory facilities and equipment up to 20 sets in 2020 and 2021, sourced from PERMENKES Number. 56 of 2014, the availability of equipment available for clinical pathology laboratories of type C hospitals there are 32 types of equipment used (SPM Information of Clinical Pathology Laboratory of Idaman Hospital, 2020-2021).

Sourced from previous research by Ningsih, Hasmah, and Bhebe (2021), there is a relationship between Service Quality based on Reliability Dimensions with Interest in Reusing Health Services at Tamalanrea Health Center Makassar city. Sourced from the preliminary information on the reliability of officers to patients at Idaman Banjarbaru Hospital, there are complaints adrift of the reliability of laboratory officers (criteria) of 91% for 2020 and 92% in 2021, but from the target that should be 100% obtained is still below the average target (Information SPM Laboratory RSD Idaman, 2020-2021).

Sourced from the results of previous research by according to Ningsih et al. (2021), there is a relationship between Service Quality based on the Dimension of responsiveness with the Interest in Reusing Health Services at the Tamalanrea Health Center in Makassar City. Sourced from the pre-

liminary information of the officer's responsiveness survey to patients at Idaman Banjarbaru Hospital, the speed of completion of laboratory results in 2020 compared to 2021 faced a depreciation trend was 112 minutes in 2020 and 115 in 2021. This matter shows that there is still a delay in the check results that is more than 3 hours late, and there are some patients must wait for the officer to arrive at the place of taking illustrations SPM Information laboratory rsd Idaman, 2020-2021.

The circumstances described above distribute contributions to the use of patient outpatient health services in the clinical pathology laboratory at Idaman Banjarbaru Hospital—sourced on the above until it is necessary to try research on the analysis of aspects that affect the use of outpatient health services to clinical pathology laboratory services at Idaman Banjarbaru Hospital in 2022.

This study aims to determine age, gender perception of health pain, physical evidence, reliability, and responsiveness in the Utilization of Clinical Pathology Laboratory Services in Outpatients of Idaman Banjarbaru Regional Hospital.

RESEARCH METHODS

This type of research uses quantitative research with an observational research design - A cross-sectional research approach. This research was carried out by the Banjarbaru City Dream Regional Hospital in the Clinical Pathology Installation in February-April 2022. Information collection was initiated in October 2021 on SIMRS RSD Idaman Banjarbaru data. The population in this study is the entire outpatients of 110 patients in general payments who carry out health checks for the Clinical Pathology Installation of Idaman Hospital in Banjarbaru City.

Sample takers in this study used a sampling method using non-probability sampling, namely Purposive Sampling. Sourced on the hypothesis in this research is to look at the bond until the two-proportion hypothesis test with two tails (two tails) so that the large formula of illustration used calculations sourced on the Estimated Formula difference of two proportions (Lemeshow, Hosmer, Klar, & Lwange, 1997) is:

$$n = \frac{\left(Z_{1-\frac{\alpha}{2}} \sqrt{2P(1-P)} + Z_{1-\beta} \sqrt{P_1(1-P_1) + P_2(1-P_2)} \right)^2}{(P_1 - P_2)^2}$$

Information:

N = Minimum sample count

$Z_{1-\alpha} = 1.96$ (Value Z at derat meaning $\alpha = 0.05$)

$Z_{1-\beta} = Z$ value (study power) 95%

P = Average values of P1 and P2 $(P_1 + P_2)/2$

P1 = The proportion of samples that state the use of services

amounting to

$P2 =$ The proportion of samples that stated not to use the service

$Deff = 2$

RESEARCH AND DISCUSSION RESULTS

Research instruments using closed questionnaires have been provided answers, so outpatients just choose the answers accordingly. Data is processed with computer program applications by using the SPSS program, after which the study results data is presented in the form of a table along with a narrative.

The presentation of data in this study was tried by using tables and written descriptions of the analysis obtained from the results of interviews and questionnaire fillings.

Univariate Analyst

Age

The distribution of respondents' age frequency can be seen more clearly in Table 1 below:

TABLE 1. Distribution of respondents' age

Age	(n)	Percentage (%)
Young	63	57
Old	47	43
Total	110	100,0

Based on the results of the univariate analysis in Table 1, it is known that of the 110 respondents, 63 respondents (57%) stated that the most were young people, and 47 respondents (43%) stated that the smallest type was the smallest older adults obtained from respondents.

Gender

The gender frequency distribution of respondents in this study can be seen in Table 3 below:

TABLE 2. Distribution of gender frequency

Gander	Total (n)	Percentage (%)
Female	67	61
Male	43	39
Total	110	100,0

Based on the results of the univariate analysis in Table 2, out of 110 respondents, 67 respondents (61%) stated the most categories of the female sex. Meanwhile, 43 respondents (39%) stated that the smallest respondents were in the male sex category.

Healthy-sick perception

The perception of healthy-sick respondents in this study categorized good health-pain and bad perceptions. The fre-

quency distribution of the health-sick perception of respondents in this study can be seen in Table 3 below:

TABLE 3. Distribution of frequency of healthy-sick perception

Healthy-Sick Perception	Total (n)	Percentage (%)
Bad	24	22
Good	86	78
Total	110	100,0

Based on the results of research from the perception of healthy-sick obtained; respondents said that when there are symptoms of disease something immediately goes to the fasyenkes or laboratory do an examination that is as much as 76 or 76%, while the most statement is to invite family and friends to always check health in the health facility or laboratory. Based on the research results from the perception of healthy-sick obtained in question number 7, the percentage of respondents is the lowest. The highest percentage for negative statements (strongly disagree and disagree) is ideally a maximum of 20%. However, suppose you look at the items on this issue. In that case, there are 24%, so it is necessary to get special attention to intervention so that the healthy perception of when there are symptoms of disease immediately goes to the fasyenkes or laboratory to do a better community examination.

Physical evidence

In this study, the respondents' physical evidence was categorized as good and insufficient physical evidence. The frequency distribution of the physical evidence of respondents in this study can be more clearly seen in Table 4 below:

TABLE 4. Distribution of frequency of physical evidence

Physical Evidence	(n)	Percentage (%)
Bad	25	23
Good	85	77
Total	110	100,0

The highest percentage for negative statements (strongly disagree and disagree) is ideally a maximum of 20%. However, if you look at the items on this question, there are 24%, based on the results of research from physical evidence obtained on the numbers 6 and 7 that need special attention because the negative statement about number 6 is 22% and question number 7 is 26%. This means that the condition of the administrative officer of pk RSDI laboratory looks neat and clean, and the sampling room, waiting room, and toilet PK LABORATORY RSDI are kept clean need to be intervened so that the variable physical evidence becomes better.

Reliability

The reliability of the respondents in this study was categorized as good reliability and poor reliability. The frequency distribution of respondents' reliability in this study can be more clearly seen in Table 5 below:

TABLE 5. Distribution of frequency of reliability

Reliability	(n)	Percentage (%)
Bad	21	19
Good	89	81
Total	110	100,0

Based on the research results from reliability, there are no negative statements from respondents with a percentage of more than 20%. This shows that overall the reliability of the officer is good and needs to be maintained.

Responsiveness

The responsiveness of the respondents in this study was categorized as good responsiveness and bad responsiveness. The distribution of the responsiveness frequency of respondents in this study can be more clearly seen in the following Table 6:

TABLE 6. Distribution of frequency of respondents' responsiveness

Responsiveness	(n)	Percentage (%)
Bad	27	24
Good	83	76
Total	110	100,0

Based on the research results from responsiveness, there were no negative statements from respondents with a percentage of more than 20%. This shows that overall the responsiveness of the officer is good and needs to be maintained.

Service utilization

An activity or decision made by the population to always utilize until it never utilizes using health services contained

in the Clinical Pathology Laboratory of RSDI. The frequency distribution of service utilization of research respondents can be seen in Table 8 below:

TABLE 7. Distribution of frequency of utilization of respondent services

Service Utilization	(n)	Percentage (%)
Not Utilizing	33	30
Utilizing	77	70
Total	110	100,0

TABLE 8. How many times to use respondent's relationship with utilization of outpatient PK laboratory services

No.	How Many Times to Use	N	%
1.	0	33	30,0
2.	1x	27	24,6
3.	2x	25	22,7
4.	3x	14	12,7
5.	4x	11	10,0

Based on the results of the analysis of univariate Table 8, it is known that of the 110 respondents, most of the categories utilized, namely as many as 77 respondents (70%), and a small part of the categories did not utilize, namely 27 respondents (24%). In the results of the analysis of univariate Table 8, it is known that the percentage of how many times use respondents' services there are the most of 27 respondents (24.6%) stated once utilizing services while the smallest benefit of services amounting to 11 respondents (10%) stated 4x utilizing services in the laboratory pk RSD Idaman Kota Banjarbaru.

Bivariate Analysis

Age relationship with utilization of laboratory services

It was found that there was an age relationship with the use of PK laboratory services at Idaman Hospital in Banjarbaru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 9. Age relationship with utilization of laboratory services

Age	Utilization of Laboratory Services				Total	p-Value	OR	
	Utilizing		Not utilizing					
	N	%	N	%				
Young	51	81,0	12	19,0	63	100,0	0,007	3,433
Old	26	55,3	21	44,7	47	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,007 < 0,05$ (OR : 3,433 95% CI 1,464-8,048)

Sex relations with utilization of PK laboratory services

It was found that there was a sexual relationship with the use of PK laboratory services at Idaman Hospital in Banjar-

baru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 10. Sex relationship with utilization of laboratory services

Sex	Utilization of Laboratory Services				Total		p-Value	OR
	Utilizing		Not utilizing		N	%		
	N	%	N	%				
Female	57	85,1	10	14,9	67	100,0	0,000	6,555
Male	20	46,5	23	53,5	43	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,000 < 0,05$ (OR : 6,555 95% CI 2,664-16,128)

Healthy-sick perception relationship with utilization of laboratory services

It was found that there was no healthy-sick perception relationship with the use of PK laboratory services at Idaman

Hospital in Banjarbaru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 11. Healthy-sick perception relationship with utilization of laboratory services

Healthy-Sick Perception	Utilization of Laboratory Services				Total		p-Value	OR
	Utilizing		Not utilizing		N	%		
	N	%	N	%				
Good	61	70,9	25	29,1	86	100,0	0,880	1,220
Bad	16	66,7	8	33,3	24	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,880 < 0,05$ (OR : 1,220 95% CI 0,463 -3,212)

Physical evidence relationship with utilization of laboratory services

It was found that there was a relationship of physical evidence with the use of PK laboratory services at Idaman

Hospital in Banjarbaru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 12. Physical evidence relationship with utilization of laboratory services

Physical Evidence	Utilization of Laboratory Services				Total		p-Value	OR
	Utilizing		Not utilizing		N	%		
	N	%	N	%				
Good	70	82,4	15	17,6	85	100,0	0,000	12,000
Bad	7	28,0	18	72,0	25	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,000 < 0,05$ (OR: 12,000 95% CI 4,259-33,813)

Reliability relationship with utilization of laboratory services

It was found that there was no reliability relationship with the utilization of PK laboratory services at Idaman Hospi-

tal in Banjarbaru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 13. Reliability relationship with utilization of laboratory services

Reliability	Utilization of Laboratory Services				Total	p-Value	OR	
	Utilizing		Not utilizing					
	N	%	N	%				
Good	64	70,9	25	28,1	89	100,0	0,525	1,575
Bad	13	61,9	8	38,1	21	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,525 < 0,05$ (OR : 1,575 95% CI 0,583-4,260)

Responsiveness relationship with utilization of PK laboratory services

It was found that there was a responsiveness relationship with the use of PK laboratory services at Idaman Hospital in

Banjarbaru City. The relationship can be more clearly seen in the following cross-tabulation:

TABLE 14. Responsiveness relationship with utilization of laboratory services

Responsiveness	Utilization of Laboratory Services				Total	p-Value	OR	
	Utilizing		Not utilizing					
	N	%	N	%				
Baik	66	79,5	17	20,5	83	100,0	0,000	5,647
Buruk	11	40,7	16	59,3	27	100,0		
Total	77	70,0	33	30,0	110	100,0		

*Fisher's exact test $p = 0,000 < 0,05$ (OR : 5,647 95% CI 2,218-14,379)

DISCUSSION

Age Relationship With Utilization of Clinical Pathology Laboratory Services

The fisher's exact test analysis results found an age relationship with the utilization of outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City. This can be because at a younger age; they have a better view of health (Harlan & Paskarini, 2014; Sari, Arso, & Wigati, 2017).

The study results revealed a relationship between age and outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City because younger age or young age has greater demands and expectations in outpatient laboratory health examinations than old age.

Sex Relationship With Utilization of Clinical Pathology Laboratory Services

The study results revealed a sexual relationship with outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City. Harlan and Paskarini (2014) argue that men and women have differences in physical and muscular abilities.

Based on the results of this study, in line with the introduction according to Yunizar and Nasution (2020), there is a significant relationship between sex and the use of BPJS. Furthermore, in this study, according to Pebriani and Misnianti (2021), there is an influence between the sexes on

the Utilization of Health Services for Jkn Participants at the Padang Health Center Tuesday Palembang Era Covid-19.

Healthy-Sick Perception Relationship Towards Utilization of Clinical Pathology Laboratory Services

The results revealed that there was no relationship between the perception of health and illness with the use of outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City because respondents in the study who became outpatients of various ages and gender levels ranging from a young age to old age while in the sex between men and women.

Physical Evidence Relationship With Utilization of Clinical Pathology Laboratory Services

The study results revealed the relationship of physical evidence with the utilization of outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City. Tjiptono (2016) explained that physical evidence is the physical appearance of advice and infrastructure that supports the quality of service that can be directly experienced by patients in health services, including the appearance of operators, medical equipment fittings, cleanliness of medical devices, cleanliness and comfort of the room.

Following the research results with the results of previous research by Ningsih et al. (2021), there is a relationship between service quality based on tangible dimensions with

the interest in reusing health services of the Tamalanrea Health Center Makassar City.

Reliability Relationship to Utilization of Clinical Pathology Laboratory Services

The study results revealed the absence of a reliability relationship with the utilization of outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City. Tjiptono (2016) explained that reliability is a measure that displays expertise in distributing accurate, professional, and trustworthy services, responsible for what is promised, and following sufferers' expectations. Hubungan Daya Tanggap Dengan Pemanfaatan Layanan Laboratorium Patologi Klinik Pada Pasien Rawat Jalan RSD Idaman Kota Banjarbaru

The study results revealed a responsiveness relationship with the use of outpatient clinical pathology laboratory services at Idaman Hospital in Banjarbaru City. Tjiptono (2016) are willing staff or employees to help patients and distribute services with responsiveness.

The Most Dominant Relationship Between Free Variables With Bound Variables in Clinical Pathology Laboratory Services

The four independent variables (age, gender, physical evidence, and responsiveness) related to the utilization of PK laboratory services, the most dominant physical evidence variables are related to the utilization of PK laboratory services with OR of 10,378. The sex with OR of 9,412, the responsiveness with OR is 8,449, and the age with OR is 3,456. This revealed that physical evidence was the most dominant variable associated after gaining control of variables of age,

gender, health-pain perception, reliability, and responsiveness.

CONCLUSION

Based on the results of research on the related factors of pk laboratory service utilization in outpatients of Idaman Regional Hospital of Banjarbaru City, the following conclusions were obtained:

1. There is a relationship between age factors and utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
2. There is a relationship between sex factors and the utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
3. There is no relationship between healthy-sick perception factors and the utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
4. There is a relationship between physical evidence factors and the utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
5. There is no relationship between reliability factors and utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
6. There is a relationship between responsiveness factors and the utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.
7. Physical evidence factors are the most dominant factors related to the utilization of clinical pathology laboratory services in outpatients of Idaman Banjarbaru Regional Hospital.

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