Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

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Abstract

Introduction: Heart disease is still a major concern in the Indonesian health sector. Wrong perceptions of heart disease are a significant barrier to preventing and controlling heart disease. This study aims to determine the illness and health care system perception in heart disease patients at Government Hospital Daerah Istimewa Yogyakarta.

Method: This study was analytic observational with a cross-sectional design with sampling using a convenience sampling technique. Data collection used a questionnaire method with direct interviews with patients. Data analysis used Kolmogorov-Smirnov and Chi-Square tests.

Result: The results obtained 108 patients consisting of 51 men and 57 women. Based on the Kolmogorov-Smirnov test, 88.89% of patients had a good perception of illness, and 56.48% had a good perception of the healthcare system. Chi-Square test analysis showed sociodemographic variables associated with illness perception were total family income monthly (p=0.000) and duration of heart disease (p=0.021). In contrast, the perception of the health care system is related to the variables of age (p=0.001) and educational status (p=0.002).

Conclusion: The heart disease patients in Government Hospital Daerah Istimewa Yogyakarta have an excellent perception of illness and the healthcare system. Patients' perceptions will increase if patient knowledge and hospital service quality are improved.

Keywords: *heart disease, illness perception, healthcare system perception*.

Introduction

Globally and in Indonesia, cardiovascular disease is a major public health concern. 17.9 million people die from cardiovascular disease each year. A condition affecting the heart and blood vessels is called cardiovascular disease[1]. According to the 2018 Riset Kesehatan Dasar (RISKESDAS) data, 1.5% of Indonesians of all ages have a diagnosis of heart disease, according to medical professionals. Year after year, heart disease is becoming more and more common. At 2%[2], Daerah Istimewa Yogyakarta (DIY) is the third-highest ranking region in Indonesia for heart disease cases[2].

Misconceptions and gaps in understanding regarding heart disease pose serious obstacles to heart disease control and prevention. More than 70% of respondents were not aware that heart disease frequently goes undiagnosed, especially in the early stages of the condition, which serves as evidence of this[3]. Educating people about heart disease significantly influences their behavior. Awareness of a disease's risk factors, symptoms, length of illness, and effects on patients and their families is known as illness perception. This awareness helps patients manage their condition more effectively, lower their stress levels, and ultimately improve their health[4–6]. Emotional and depressive symptoms have been linked to adverse effects on the patient's condition, according to prior research[7]. The World Health Organization (WHO) lists the following as risk factors for heart disease: alcohol intake, smoking, poor diet, obesity, and lack of physical activity[1]. Treatment adherence rates will be higher in patients who perceive their condition more favorably[7].

The majority of Indonesians participate in treatment-seeking activities that involve patients, friends, family, and the community. One thing that motivates people to attend a health institution is a recommendation for medical services from the person who is closest to them. The way that people view the healthcare system influences how they seek health care[8]. According to studies by Jo et al., patients' opinions of the healthcare system can be influenced by a number of factors, including sufficient medical facilities, high-quality treatment, and comprehensive information from officers[9]. Patient opinions of the healthcare system are significantly influenced by attitudes and behaviors related to heart disease care.

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

1

Health professionals are required to give patients enough information about their care[9,10]. In order to pinpoint the services that require improvement, patient opinions of the quality of healthcare are crucial[11]. In order to raise the standard of care and give providers of healthcare feedback, research on patients' perceptions of sickness and healthcare systems is necessary. The purpose of this study was to find out how patients with heart disease at the Government Hospital Daerah Istimewa Yogyakarta perceived their condition and the healthcare system.

Materials and Methods

The research design was analytically observational with a cross-sectional design. The study was conducted at the Government Hospital Daerah Istimewa Yogyakarta from January to February 2023. The study subjects were outpatient with heart disease participating in the National Health Insurance (NHI) at the Government Hospital Daerah Istimewa Yogyakarta. Inclusion criteria were outpatient with heart disease participating in JKN, patients willing to become test subjects by signing informed consent, patients diagnosed with heart disease ≥3 months, patients aged ≥18 years, and patients able to communicate, understand and answer questionnaire questions well. Exclusion criteria were patients with incomplete questionnaire data information. Determination of the number of samples using the Cochran formula because of the unknown population, the formula was used[12]:

$$n = \frac{Z^2 pq}{e^2}$$
$$n = \frac{(1,96)^2(0,50)(0,50)}{(0,1)^2}$$
$$n = 96$$

The estimated proportion of the population with heart disease was unknown, so a value of p = 50% or 0.5 was used. The confidence level used was 95%, with a margin of error of 10%. The minimum sample size required is 96 patients.

The research material used was primary data derived from questionnaire data. The questionnaire included three domains to measure variables: sociodemographic data, disease perception, and perception of the health service system. Data analysis used descriptive analysis, the Kolmogorov-Smirnov test, and the Chi-square test.

Result and Discussion
Characteristics of Patients

Patients in this study were patients with heart disease, including Ischemic Heart Disease (IHD), heart failure, coronary heart disease, and others. The total patients were 108 patients.

Table 1 showed that proportion of women was higher than man. Harigustian's research in Sleman report that heart disease was more common among women than men[13]. In addition, the results of the highest patient characteristics in the age group over 60 years were 59.26%. Most people with heart disease are > 60 years old[14]. Age increase is one of the causes of decreased heart function[15].

Table 1. Sociodemographic characteristics of heart disease patients

Characteristics	N	%	Total
Sex			
Men	51	47.22	108
Women	57	52.78	
Age (years)			
< 60	44	40.74	108
≥ 60	64	59.26	
Education			
Unschooled - primary school	27	25	108
High school	43	39.81	
Higher education	38	35.19	
Total family income per month			
< Regional minimum wage (IDR 2,300,000)	47	48.96	96
≥ Regional minimum wage (IDR 2,300,000)	49	51.04	
Disease duration (years)			108
< 4	66	61.11	
≥ 4	42	38.89	

Most patient have education in high school with percentage around 39.81%. This study relevant with previous studies, the highest characteristic of heart disease patients based on education level is high school at 33.3%[16]. Differences in education levels can affect patients' knowledge about health[17]. The proportion of patient that have family income per month more than regional minimum wage was 51.04%. Research in Western Ethiopia shows that the monthly income of patients with heart disease was most in the group of more than 500 ETB[10]. Most patient suffered from heart disease in less than four years, as many as 61.11%. Alghamdi's research shows that the time of heart disease is mainly in the 1-5year group, as much as 46%[18].

Illness Perceptions

Perception of illness consists of nine questions and used likert scale with four alternative answers (strongly agree, agree, disagree, and strongly disagree). Data on the illness perception based on patients' answers can be seen in Table 2. Most patient (76.85%) agreed that people with a family history of heart disease increase the risk of getting heart disease.

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

2

These results align with previous research, reporting that 26.4% agreed that heredity is the leading cause of coronary heart disease[19]. A family history of heart disease can increase the risk of developing heart disease[3].

More than 50% (91.67%) of patients agreed that the burden of mind, stress, or life difficulties could cause heart disease. Thagizadeh et al research in Iran, as many as 27.5% thought that high-stress levels were a risk factor that could affect IHD[20]. Another study reported that most patients considered stress the leading cause of IHD. Stress management and mood control are critical because they improve the perception of heart disease[4,21]. All patients stated that heart disease could be caused by age (strongly agree 6.48% and agree 93.52%). This finding aligns with research in Jordan which states that increasing age is the leading cause of coronary heart disease[19]. Advanced age is a risk factor for heart disease that cannot be modified[3].

Only 0.93% patients disagreed that smoking causes heart disease. Based on research in Palestine, smoking is the most identified risk factor for coronary heart disease. In addition, some patients agreed that there are benefits to quitting smoking that will be received, like reducing the risk of disease severity. There often barriers when someone tried to make healthier lifestyle, like quitting smoke. It comes from pressure from the surrounding environment such as family, friends, and co-workers smokers, and in need to have a strong and consistent will [22].

Most patients agreed (93.52%) that heart disease can be caused by excessive body weight, lack of activity, and consumption of high-fat foods. Most patients do not exercise enough, often consume high-fat foods, and lack vegetable intake, causing excessive body weight. In accordance with several studies that have been conducted previously, that unhealthy diet, overweight, obesity, and physical inactivity are risk factors for heart disease[19,20,23].

Table 2. Distribution of answers on the perception of illness

No	Questions	Strongly agree		Agree		disagree		Strongly disagree	
		N	%	N	%	N	%	N	%
1	Heart disease caused by a family history of heart disease	7	6.48	83	76.85	18	16.67	0	0.00
2	The burden of mind or stress, or life difficulties cause heart disease	8	7.41	99	91.67	1	0.93	0	0.00
3	Heart disease caused by increasing age	7	6.48	101	93.52	0	0.00	0	0.00
4	Heart disease caused by smoking	7	6.48	100	92.59	1	0.93	0	0.00
5	Heart disease caused by being overweight	7	6.48	101	93.52	0	0.00	0	0.00
6	Heart disease is caused because your lack of activity	7	6.48	101	93.52	0	0.00	0	0.00
7	Heart disease caused by frequent consumption of high-fat foods	7	6.48	101	93.52	0	0.00	0	0.00
8	Heart disease requires regular and long-term treatment	7	6.48	101	93.52	0	0.00	0	0.00
9	Heart Disease can be cured with supernatural powers	0	0.00	0	0.00	67	62.04	41	37.96

Patients agreed (93.52%) and strongly agreed (6.48%) that heart disease requires long-term and regular treatment. This study's results align with research in Indonesia that IHD is a chronic disease that requires long-term care[23]. All patients disagreed (62.04%) and strongly disagreed (37.96%) if supernatural can cure heart disease. Patients believe that their heart disease will get better if they follow the advice of doctors and other health workers and have the spirit to recover. Therefore, patients prefer to seek treatment at formal health facilities such as hospitals. Jo *et al* reported that most chronic disease patients choose hospitals and other health services when sick or whenever they feel symptoms of an illness[9].

This study shows that patients already know and understand heart disease. Therefore, patients changed their lifestyle to be healthier by doing light exercise, walking around the house, eating a healthy diet, and quitting smoke. These results align with research conducted by Plotka et al, that most Chronic Heart Failure (CHF) patients make lifestyle changes such as losing weight, quitting smoking, and changing their diet. Patients with mild CHF exercise regularly compared to patients with severe CHF[24]. Another study in Nigeria reported that most patients walked at least 10 minutes daily and consumed fruit regularly[25]. These behavioral changes are based on increasing patient awareness of the dangers of heart disease and getting support from family and closest people to

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

3

change unhealthy behavior. This finding is supported by Nur, who stated that support from family or people closest to the patient is significant, especially in maintaining diet, doing physical activity, quitting smoking, and reminding them to take their medicine regularly[23].

Table 3. Illness perception scores and categories

Min	Max	Median	Categories (%)	
			Good	Not good
26	36	27	88.89	11.11

Table 3 presents illness perception scores and categories. The range of possible illness perception scores is 0 to 36. The results showed that the minimum and maximum scores for each heart disease perception were 26 and 36. Based on the Kolmogorov-Smirnov normality test results, it was known that the data were not normally distributed, so the categorization was based on the median value of 27. A total of 88.89% of patients fell into the good category, while 11.11% of patients fell into the not good category. The group of patients in the good category are patients with an illness perception score ≥27; if the patient's score is <27, then it is included in the poor category group. A good illness perception score is because patients receive advice and knowledge from health workers in the hospital and have implemented it in their daily lives to get better health[23].

Perception of the Healthcare System

The results of the distribution of answers to perceptions of the healthcare system in Table 4 show that more than 50% patients disagreed if they had any difficulties to go to the hospital because there was no escort, no transport, far from home, queuing, and long procedures. The majority of patients registered online. In addition, most patients' residences are quite close to the hospital, adequate public transport is available, and several accessible ambulance facilities facilitate patients' access to the hospital. This study is not in line with the research of Fetensa et al in Southwest Ethiopia, that distance between home and health facilities is a significant factor influencing people to seek healthcare[10].

Patients routinely go to the hospital every month because they trust the drugs provided by the hospital and health workers, good health services, and complete information about heart disease and drugs. Some patients have been taking treatment at the hospital since they were first diagnosed with heart disease, so they are comfortable communicating and have a high level of trust in health workers, this encourages patients to take treatment routinely. This study aligns with research conducted by Jo et al, that most patients have a good perception of getting quality health services, such as health workers providing complete information to patients[9]. Another study reported that health workers, weekend health services, long queues, waiting time, distance, and knowledge were negative factors affecting health-seeking behaviour[26]. Health-seeking behaviour is influenced by perceptions of the healthcare system, namely complicated administrative procedures, communication with health workers, and long waiting times[8].

Table 4. Distribution of Answers on The Perception of The Healthcare System

No	Questions	Strongly agree		Agree		Disagree		Strongly disagree	
		N	%	N	%	N	%	N	%
1	I have difficulty going to the hospital because there is no escort to take me there	1	0.93	46	42.59	61	56.48	0	0.00
2	I have difficulty going to the hospital because there is no transport	1	0.93	46	42.59	61	56.48	0	0.00
3	I have difficulty going to the hospital because it is far from home	1	0.93	45	41.67	62	57.41	0	0.00
4	I have difficulty going to the hospital because the queue is long and the procedure is long	0	0.00	42	38.89	66	61.11	0	0.00
5	I regularly go to the hospital every month	3	2.78	105	97.22	0	0.00	0	0.00
6	I trust the heart disease medication provided by the hospital	1	0.93	107	99.07	0	0.00	0	0.00
7	Health services at the hospital are provided well	1	0.93	107	99.07	0	0.00	0	0.00
8	I trust the health workers at the hospital	1	0.93	107	99.07	0	0.00	0	0.00
9	Health workers provide complete information about my heart disease	1	0.93	107	99.07	0	0.00	0	0.00
10	Health workers at the hospital provide complete information about medicine	1	0.93	107	99.07	0	0.00	0	0.00

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

4

Table 5. Healthcare system perception scores and categories

Min	Max	Median	Categories (%)	
			Good	Not good
24	36	30	56,48	43,52

The category of perception score of the healthcare system was grouped into good and less good based on the Kolmogorov Smirnov normality test results in Table 5. The normality test results showed a p-value <0.05, meaning the data was not normally distributed, so the cut-off point was taken from the median value of 30. Sixty-one patients were included in the good category because the healthcare system perception score was ≥30, while 47 patients with a disease perception score of <30 were in the not good category. According to previous research, which showed that most (68.99%) patients perceive health services nicely[9]. The minimum score was 24, and the maximum score was 36. This is because possible healthcare system perception scores range from 0 to 40.

Correlation between Sociodemographics and Illness Perception

The results of the analysis of the correlation between sociodemographics and illness perception using the chi-square test are listed in Table 6. The significance value >0.05 indicates no correlation between the variables of gender, age, and educational status with illness perception. At the same time, the total family income per month and the length of time suffering from heart disease obtained a significant value.

In line with previous research, the variables of age, gender, and education are not correlation with illness perception[4]. Umuerri's research stated that the patient's level of knowledge about heart disease did not differ significantly (p>0.05) with age, gender, marital status, and education level[25]. Another study showed no correlation between socioeconomic status and coronary heart disease[27]. Duration of illness increases patient perception[10].

Table 6. Correlation between sociodemographics and illness perception

Characteristics	Illness perception				P-value
	Good		Not good		
	N	%	N	%	
Sex					
Men	45	88.2	6	11.8	0.838
Women	51	89.5	6	10.5	
Age (years)					
< 60	39	88.6	5	11.4	0.945
≥ 60	57	89.1	7	10.9	
Education					
Unschooled - primary school	24	88.9	3	11.1	0.859
High school	39	90.7	4	9.3	
Higher education	33	86.8	5	13.2	
Total family income per month					
< Regional minimum wage (IDR 2,300,000)	45	95.7	2	4.3	0.000*
≥ Regional minimum wage (IDR 2,300,000)	44	89.8	5	10.2	
Disease duration (years)					
< 4	55	83.3	11	16.7	0.021*
≥ 4	41	97.6	1	2.4	

significant p-value (p<0.05)

Correlation between Sociodemographic and Perceptions of the Healthcare System

The chi-square test results to determine the correlation between sociodemographics and perceptions of the healthcare system are presented in Table 7. Based on the chi-square test, the significance value for gender, total family income per month, and duration of heart disease are >0.05, so there is no correlation. At the same time, age and educational status are associated with perceptions of the healthcare system (<0.05). In line with Harahap and Utami research on the correlation between age and perceptions of healthcare quality[28]. Jo et al. research report no significant correlation between patients' education level and their perceptions of quality of care[9]. Previous research states that income and duration of illness are significantly associated with health-seeking behaviour[10].

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

5

Table 7. Correlation between sociodemographics and perceptions of the healthcare system

| Characteristics | Perceptions of the healthcare system | | | | P-value |
| | Good | | Not good | | |
	N	%	N	%	
Sex					
Men	30	58,8	21	41,2	0,642
Women	31	54,4	26	45,6	
Age (years)					
< 60	33	75	11	25	0,001*
≥ 60	28	43,8	36	56,3	
Education					
Unschooled - primary school	9	33,3	18	66,7	0,002*
High school	23	53,5	20	46,5	
Higher education	29	76,3	9	23,7	
Total family income per month					
< Regional minimum wage (IDR 2,300,000)	23	48,9	24	51,1	0,073
≥ Regional minimum wage (IDR 2,300,000)	34	69,4	15	30,6	
Disease duration (years)					
< 4	37	56,1	29	43,9	0,912
≥ 4	24	57,1	18	42,9	

significant p-value (p<0.05)

Conclusions

Based on the study's results, 88.89% and 56.48% of patients had a good perception of the illness and healthcare system. There is a correlation between total family income per month and the duration of heart disease on illness perception. There is a correlation between age and educational status in the perception of the healthcare system.

Acknowledgments

Ethical Consideration

Ethical clearance with number 42/KEPK/RSUD/XII/2022 was obtained on 31 December 2022 from the Health Research Ethics Committee of the Rumah Sakit Umum Daerah Kota Yogyakarta. Patients signed a consent form before participating in this study.

Author Contribution

TMA, DE designed the study; RRB carried out data collection. RRB, TMA, DE analyzed the data; RRB, TMA, DE wrote and review the manuscript; All authors read and approved the final version of the manuscript

Competing Interests

Abbreviation

CHF	: Chronic Heart Failure
IHD	: Ischemic Heart Disease
NHI	: National Health Insurance
RISKESDAS	: *Riset Kesehatan Dasar*
WHO	: The World Health Organization

References

1. WHO. Cardiovascular diseases (CVDs). https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds) (2021).
2. Kementrian Kesehatan RI. *Laporan Nasional Riskesdas 2018.* (2018).
3. Umuerri, E. M. Public Knowledge and Perception of Heart Disease: A Cross-Sectional Study of Two Communities in Delta State, Nigeria. *Journal of Medicine in the Tropics* **22**, 65–72 (2020).
4. Lerdal, A., Hofoss, D., Gay, C. L. & Fagermoen, M. S. Perception of Illness Among Patients with Heart Failure Is Related to Their General Health Independently of Their Mood and Functional Capacity. *Journal of Patient-Reported Outcomes* **3**, 1–7 (2019).
5. Lotfi-Tokaldany, M. *et al.* Association Between Illness Perception and Health-Related Quality of Life in Patients with Preexisting Premature Coronary Artery Disease. *Journal of Psychosomatic Research* **120**, 118–123 (2019).
6. Broadbent, E. *et al.* A Systematic Review and Meta-Analysis of the Brief Illness Perception Questionnaire. *Psychology & health* **30**, 1361–1385 (2015).
7. Allahbakhshian, A., Ghahramanian, A., Tabrizi, F. J. & Shirazy, S. Examining the Relationship Between Illness Perception, Adherence to Medication Regimen and Readmission in Patients with Heart Failure. *J Adv Pharm Educ Res* **9**, 142–151 (2019).
8. Widayanti, A. W., Green, J. A., Heydon, S. & Norris, P. Health-Seeking Behavior of People in Indonesia: A Narrative Review. *Journal of epidemiology and global health* **10**, 6–15 (2020).
9. Jo, F., Olowokere, A., Ayamolowo, S., Faronbi, G. & Adebiyi, M. Health Seeking Behaviour and Perception of Quality of Care Among Patients with Chronic Diseases in a Nigerian Teaching Hospital. *Joj Nurse Health Care* **5**, 1–6 (2017).

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

6

10. Fetensa, G., Waldamichael, K. & Abera, A. Health Seeking Behavior and Associated Factors Among Chronic Heart Failure Adult Clients, Jimma University Specialized Hospital, South West Ethiopia. *Medical and Health Sciences Research Journal* **1**, 12–20 (2017).

11. Sandsdalen, T., Grøndahl, V. A., Hov, R., Høye, S. & Rystedt, I. Patients' Perceptions of Palliative Care Quality in Hospice Inpatient Care, Hospice Day Care, Palliative Units in Nursing Homes, and Home Care: A Cross-Sectional Study. *BMC Palliative Care* **15**, 1–18 (2016).

12. Sugiyono. *Metode Penelitian Kuantitatif.* (Alfabeta, 2019).

13. Harigustian, Y., Dewi, A. & Khoiriyati, A. Gambaran Karakteristik Pasien Gagal Jantung Usia 45 – 65 Tahun Di Rumah Sakit Pku Muhammadiyah Gamping Sleman. *IJNP* **1**, 55–60 (2016).

14. Donsu, R. A., Rampengan, S. H. & Polii, N. Karakteristik Pasien Gagal Jantung Akut di RSUP Prof Dr. R. D. Kandou Periode Januari-Desember 2018. *MSJ* **1**, 30–37 (2020).

15. Sari, G. K., Pistanty, M. A. & Purwanjani, W. Analisis Biaya Pasien Gagal Jantung Rawat Inap Jamkesmas Di RSUP Dr. Sardjito Yogyakarta. *Journal of TSCD3Kep* **5**, 24–31 (2020).

16. Sidarta, E. P., Vidyawati & Sargowo, D. Karakteristik Pasien Gagal Jantung Di RS BUMN Di Kota Malang. *CDK* **45**, 657–660 (2018).

17. Hermawan, C., Anggraeni, R. & Setianingsih, S. Gambaran Upaya Dalam Mencari Bantuan Kesehatan Pada Masyarakat. *Jurnal Keperawatan* **9**, 52–59 (2017).

18. Alghamdi, A., Algarni, E., Balkhi, B., Altowaijri, A. & Alhossan, A. Healthcare Expenditures Associated with Heart Failure in Saudi Arabia: A Cost of Illness Study. *Healthcare* **9**, 988 (2021).

19. Mosleh, S. M. & Almalik, M. M. Illness Perception and Adherence to Healthy Behaviour in Jordanian Coronary Heart Disease Patients. *European Journal of Cardiovascular Nursing* **15**, 223–230 (2016).

20. Thagizadeh, A. *et al.* Illness Perception and Cardiovascular Risk Factors in Patients with Myocardial Infarction Undergoing Percutaneous Coronary Intervention in Iran. *BMC Cardiovascular Disorders* **22**, 1–12 (2022).

21. Gauro, P., Thaniwattananon, P. & Kritpracha, C. Illness perception predicting cardiovascular health behaviors among patients with ischemic heart disease in Nepal: a descriptive cross-sectional study. *JNMA: Journal of the Nepal Medical Association* **58**, 884–888 (2020).

22. Dabbak, H. & Arafa, M. A. Risk Assessment and Risk Perception of Coronary Heart Disease in Gaza Strip, Palastine. *Health* **6**, 2883–2893 (2014).

23. Nur, K. R. M. Illness Perception and Cardiovascular Health Behaviour Among Persons with Ischemic Heart Disease in Indonesia. *International journal of nursing sciences* **5**, 174–180 (2018).

24. Plotka, A., Prokop, E., Migaj, J., Straburzyńska–Migaj, E. & Grajek, S. Patients' Knowledge of Heart Failure and Their Perception of the Disease. *Patient preference and adherence* **11**, 1459–1467 (2017).

25. Umuerri, E. M. Heart Disease: Lifestyle, Knowledge, and Perception Among Young Nigerian Adults. *International Journal of the Cardiovascular Academy* **5**, 134–140 (2019).

26. Mboweni, R. F. & Sumbane, G. O. Factors Contributing to Delayed Health Seeking Behaviours Among Adolescents. *Global Journal of Health Science* **11**, 67–76 (2019).

27. Farahdika, A. & Azam, M. Faktor Risiko Yang Berhubungan Dengan Penyakit Jantung Koroner Pada Usia Dewasa Madya (41-60 Tahun). *Unnes Journal of Public Health* **4**, 117–123 (2015).

28. Harahap, D. R. & Utami, T. N. Persepsi Masyarakat Terhadap Kualitas Pelayanan Kesehatan Pada Masa Pandemi Covid-19 Di Kota Binjai. *Jurnal Penelitian Kesehatan Suara Forikes* **12**, 162–165 (2021).

Perception Towards Illness and Health Care System: A Survey among Heart Disease Patients in Public Hospital in Yogyakarta Province

7