Research Article

The Relationship of Patient Satisfaction with Therapeutic Services with Therapeutic Compliance in Outpatient Hypertension Patients at Wonosari Hospital

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ABSTRACT

The increasing prevalence of hypertension cases is related to the low level of patient compliance in taking antihypertensive drugs. So, adherence to therapy is an essential element in managing hypertensive patients. One of the efforts to improve patient compliance in the use of drugs is the need for good service quality to provide satisfaction to patients with the therapeutic services obtained. This study aimed to determine the relationship between satisfaction with therapy services and adherence to therapy in outpatient hypertension patients at Wonosari Hospital. The type and research design used is analytic observational with a cross-sectional approach. The number of samples was determined using the Lemeshow formula. The sampling technique used in this study is non-probability sampling with the purposive sampling method. The sample subjects used in the study were all patients with a primary diagnosis of hypertension who had met the inclusion and exclusion criteria. The data collected is patient satisfaction with therapy services using the PSQ-18 questionnaire and therapeutic compliance with the MARS-5 questionnaire. The data obtained were then analyzed using Fisher's test. The results showed that of the 96 respondents, 89.6% were satisfied, 10.4% were dissatisfied with the health services obtained at Wonosari Hospital, 61.5% were compliant, and 38.5% were not compliant with their treatment. Fisher's analysis showed a significant relationship between patient satisfaction and adherence to therapy in hypertension patients with $p = 0.000$ ($p < 0.05$). This study concludes that a meaningful relationship exists between satisfaction with therapy services and adherence to therapy in outpatient hypertension patients at Wonosari Hospital.

1. INTRODUCTION

Hypertension is one of the most common cardiovascular diseases that most people experience. Hypertension is the number 3 cause of death yearly after stroke and tuberculosis (tuberculosis) (Ministry of Health, 2019). Hypertension, more commonly known as high blood pressure, is a condition with an increase in blood pressure that exceeds the average threshold, which is 140/90 mmHg persistently (James et al., 2014). WHO (World Health Organization) argues that blood pressure is normal if it is less than 130/85 mmHg. An increase in blood pressure that lasts for a long time can cause damage to the kidneys (kidney failure), heart (coronary heart disease), and brain if not detected early and get the proper treatment.RI Ministry of Health, 2019).

Hypertension is a disease with very high mortality and morbidity rates. Data from WHO (World Health Organization) shows that hypertension affects 22% of the world's population (WHO, 2014). In Indonesia, the prevalence of hypertension has increased by 34.1% compared to 2013, which amounted to 25.8% (RI Ministry of Health, 2019). The Special Region of Yogyakarta is a province that occupies the fourth position as the province with the highest hypertension cases with a prevalence of 11.01% (Ministry of Health, 2018). Based on the 2018 Health Center STP Report, there were 56,668 cases of hypertension. Meanwhile, based on the STP Report of the Outpatient Hospital, there were 37,173 cases of hypertension (DIY Health Office, 2019). In the district of Gunungkidul, cases of hypertension occupy the highest prevalence in DIY based on the results of a doctor's diagnosis in people aged >18 years, with a percentage of 11.99%. This prevalence is the highest compared to 4 other districts in the DIY Province (Ministry of Health, 2019). Hypertension is included in the top 10 diseases that often appear in Gunungkidul Regency in 2018 (Gunungkidul District Health Office, 2019).

The prevalence of hypertension cases that continues to increase is due to the impact of therapy failure for hypertensive patients taking antihypertensive drugs. According to WHO, adherence to therapy in developed countries is only about 50%, while in developing countries, it will be even lower.NCPIE, 2007). Non-adherence to drug use is often found in treating chronic diseases that require long-term treatment, such as hypertension. Adherence to undergoing antihypertensive therapy is the most crucial factor in controlling blood pressure in hypertensive patients. One of the efforts to achieve the effectiveness of treatment and improve patients' quality of life is to increase adherence to therapy, while non-adherence to therapy is one of the main factors causing therapy failure.Gwadry et al, 2013; Parati et al., 2013). Treatment for hypertensive patients is essential because hypertension is a disease that cannot be cured and must always be controlled or controlled so that complications do not occur that can lead to death. Palmer and William, 2017).

One of the efforts to improve patient compliance in the use of drugs is the need for good service quality to provide patient satisfaction with the therapeutic services obtained. Health services must provide good service quality so that patients are obedient to control. Previous analysis of factors related to non-adherence of patients with hypertension in outpatients at H. Adam Malik General Hospital Medan found a relationship between health service variables and

medication adherence in hypertension patients (Adriansyah, 2010). Patient satisfaction is the level of one's feelings after comparing the perceived performance or service with what he expects. Patients will feel satisfied if their service is at least the same or exceeds what is expected. If the patient is pleased with the benefit obtained, then the patient will feel comfortable and happy and have more confidence in the health services provided (Pohan, 2012). Patient satisfaction is one indicator of the quality of a health service (Weiss & Tappen, 2015). The outcome variable from the results of measuring the level of patient satisfaction shows the quality and weaknesses of the health service (Mpinga et al., 2011). Therefore, patient satisfaction can be used as an evaluation material for the quality of care and treatment. Patient satisfaction with therapy services can be measured using the Patient Satisfaction Questionnaire Short-From (PSQ-18) instrument.

The success of therapy in hypertensive patients can be influenced by various factors, one of which is patient compliance in taking antihypertensive drugs. Compliance in taking medication for hypertensive patients is essential because regularly taking the pill can control the patient's blood pressure, reducing the risk of damage to other organs due to increased blood pressure.BPOM, 2006). Measuring the level of adherence to the use of drugs is vital to determine the success of treatment. The medication Adherence Report Scale (MARS) is an instrument used to measure drug therapy adherence (Mahler et al., 2010). Factors that can affect the compliance of hypertensive patients in taking drugs include external and internal factors. One of the external factors is patient satisfaction with health services obtained, while internal factors include age, background, attitudes, emotions caused by the illness, and the patient's personality (Niven, 2002; Jaya, 2009, quoted in Anggina et al., 2010).

Research conducted byAlhaddad et al. (2016)in Lebanon in hypertensive patients showed a decrease in blood pressure of less than 120/80 mmHg more in compliant patients (67.1%) than non-adherent patients (32.9%) (Alhaddad et al., 2016). Research conducted by Zyoud et al. (2013) shows that the low quality of treatment services is a vital barrier to achieving high levels of adherence to treatment (Zyoud et al.,2013). Good compliance has been shown to control blood pressure (Luscher TF et al., cited in WHO 2003) and reduce hypertension complications (Psaty Bm et al.; Rogers PG et al.; and Beckles GL et al., cited in WHO, 2003).

The low rate of adherence to therapy is the background of this study. Based on this background description, it is necessary to conduct research related to the relationship between therapeutic service satisfaction and therapeutic adherence in outpatient hypertension patients at the Wonosari Regional General Hospital, to know the description of the level of patient satisfaction and the level of drug use adherence and know the relationship between therapeutic service satisfaction. With the level of adherence to therapy in outpatient hypertension patients. The Wonosari Regional General Hospital was chosen as the research site because it is one of the referral hospitals in the Gunungkidul area.

2. MATERIALS AND METHODS

The material used in this study was medical record data of outpatient hypertension patients at Wonosari Hospital, which had met the inclusion and exclusion criteria. The tool used in this study is a data collection table from medical records in the form of data on patient blood pressure and antihypertensive drugs and by using a questionnaire. The questionnaire has been tested for validity and reliability first to produce accurate measurement data. This study used two types of questionnaires: the PSQ-18 questionnaire to measure the level of patient satisfaction and the MARS-5 questionnaire to measure the level of patient therapy adherence. The PSQ-18 questionnaire has been tested for validation and reliability with valid and reliable results (Thayaparan, 2013). Currently, the PSQ-18 questionnaire is available in a modified Indonesian version, and validation and reliability tests have been carried out on hypertensive patients bySinuraya et al. (2017) with the Cronbach's Alpha value of 0.723-0.773. This number shows that each question item on the Indonesian version of the PSQ-18 questionnaire is reliable for measuring hypertensive patients' satisfaction level with therapy services. Meanwhile, the Indonesian version of the MARS-5 questionnaire has also been tested for validity and reliability on hypertensive patients by Muhammad Adjie Cakrawanda (2019) with the obtained Cronbach's alpha value of 0.741. Therefore, the Indonesian version of the MARS-5 questionnaire has been proven valid and can be used to measure the level of compliance of hypertensive patients in using antihypertensive drugs.

This research begins with the preparation of a research proposal first, which is then continued with the processing of the necessary permits for the study; the first submission is an ethical clearance letter; after the honest clearance letter is completed, the researcher applies for permission to Wonosari Hospital by bringing an ethical clearance letter, cover letter from the faculty of pharmacy and research proposal manuscript. After obtaining a permit from the Wonosari Hospital, the researcher carried out the administrative process and then continued with the data collection process at the Wonosari Hospital, which was carried out at the outpatient clinic by distributing informed consent to prospective respondents who had met the inclusion criteria and giving questionnaires to respondents. The results of the questionnaires each respondent has filled out are then collected and screened, followed by scoring on each questionnaire. The scoring results are then analyzed using SPSS as coded data.

3. RESULTS AND DISCUSSIONS

This research has been carried out and has obtained approval from the Research Ethics Commission of the Wonosari General Hospital with the ethical exemption number: NO.070/031/2020 on November 25, 2020. The research permit was obtained from the Research Section of the Wonosari Hospital with the letter 070/4280 on November 28, 2020. This study aims to determine whether there is a relationship between patient satisfaction and adherence to therapy in outpatient hypertension patients at Wonosari Hospital. Sampling was carried out for approximately one month, from November to December 2020, with 96 respondents as research

subjects. The sample subjects used in this study were all patients with a primary diagnosis of hypertension with or without comorbidities who performed routine control checks at Wonosari Hospital.

Overview of Patient Characteristics

Characteristic distribution data of outpatient hypertension patients at Wonosari Hospital are listed in the Table below.

Table I. Description of Respondents Characteristics of Outpatient Hypertension Patients

Characteristics Respondent	Category	Frequency (n = 96)	Percentage(%)
Gender	Woman	60	62.5
	Man	36	37.5
Age	< 40 years old	25	26.0
	> 40 years	71	74.0
Sick for a long time	< 5 years	58	60.4
	> 5 years	38	39.6

1. Gender

Table III shows the characteristics of respondents in the November-December 2020 period obtained 60 of them are female (62.5%), and 36 others are male (37.5%). The results showed that hypertension was more common in women than men. These results are in line with research conducted by Lestari in 2015, which proved that hypertension sufferers at the Kotagede II Yogyakarta Health Center suffered more women (67%) than men (33%). The same thing was also found in a 2016 study in Nigeria on hypertension sufferers, which stated that women (75.4%) suffered from hypertension more than men (24.6%) (Bolarinwa et al., 2016). This result proves that gender is one-factor affecting blood pressure. Women over 45 years will experience menopause, with an increased risk of developing hypertension. In postmenopausal women, estrogen levels are lower than in premenopausal women. The hormone estrogen plays a role in increasing levels of HDL (High-Density Lipoprotein); high HDL levels can affect atherosclerosis and cause high blood pressure (Anggraini et al., 2009). The presence of estrogen can also increase angiotensin levels and reduce renin levels and the activity of the angiotensin-converting enzyme (ACE) (Gudmundsdottir et al., 2012). Therefore, the hormone estrogen level is very influential on the incidence of hypertension in women over 45 years. Other research conducted by Jannah (2016) at the Mangasa Makassar Health Center showed that blood pressure would increase with increasing age. Blood pressure begins to increase after the age of 40 years. Arterial walls will experience thickening due to the accumulation of collagen substances in the muscle layer so that the blood vessels will gradually narrow to become stiff (Jannah, 2016).

2. Age

In this study, the age group of respondents was divided into two categories, namely the age category <40 years and >40 years. Table III shows the highest percentage of outpatient hypertension patients at the Wonosari Hospital for the November-December 2020 period in the > 40-year age group. According to the results of primary health research (Riskesdas) in 2013, it was proven that most people aged 45-64 years and over 65 years suffered from hypertension (Ministry of Health, 2013). This statement explains that as we age, it can cause many physiological and functional changes that make the body more susceptible to diseases, one of which is hypertension (Carvalho et al., 2012). Other research conducted by Bolarinwa et al. (2016) showed that as many as 97.8% of patients with hypertension were at the age of 40 years. Based on this, it was concluded that the rate of hypertension patients had been shown to increase with age (Bolarinwa et al., 2016).

3. Long Sick

The length of time a person suffers from a disease will be related to the severity. Hypertension requires long-term treatment. The number of disease complications that arise due to hypertension usually occurs due to non-optimal therapy (Difficult, 2001).

Table III shows that of the 96 respondents, 58 had hypertension <5 years (60.4%), and 38 others had hypertension > five years (39.6%). This number shows that most respondents suffer from hypertension <5 years. The results of this study are not in line with research conducted by Edwin (2014), which shows that most of the respondents have a history of hypertension >5 years. The difference can be caused by internal factors from each patient, one of which is awareness of conducting an examination as early as possible after the occurrence of symptoms experienced by the patient. Most patients tend to ignore the symptoms caused by hypertension so that patients are late to obtain clinical diagnosis and treatment for high blood pressure control. StudyEdwin (2014)shows that high blood pressure that is not controlled or allowed to remain high will be able to trigger an increased risk of impaired cognitive function. Therefore, in patients suffering from hypertension, it would be better if the high blood pressure condition could be controlled from the first diagnosis by making lifestyle changes or using pharmacological therapy (Edwin, 2014).

Research conducted byObsession (2009)shows that prolonged illness can worsen cognitive function (Obsession, 2009). The results of this study are similar to the research by Waldstein (2001), which shows that long-term hypertension can cause a decrease in cognitive function, affecting the patient's quality of life.

Overview of Drug Use

We resumed an overview of the use of drugs for outpatient hypertension patients at Wonosari Hospital, including the number of medications, therapeutic class groups, generic names, and potential tablet preparations. The results of the recapitulation of the drug use description are presented in **Table II**.

Table II. Overview of the use of antihypertensive drugs in outpatient hypertension patients at Wonosari Hospital

Drug Use		Frequency (n = 96)	Percentage (%)
Amount of Medicine	Single	91	94.8
	Combination	5	5.2
Therapeutic Classes	CCB	42	43.8
	ARB	38	39.6
	ACEI	12	12.5
	CCB + ARB	3	3.1
	ACEI + ARB	1	1.0
Generic name of antihypertensive drug	Amlodipine	42	43.8
	Valsartan	14	14.6
	Candesartan	23	24.0
	Ramipril	7	7.3
	Captopril	4	4.2
	Amlodipine + candesartan	2	2.1
	Valsartan + candesartan	2	2.1
	Ramipril + candesartan	1	1.0
	Amlodipine + valsartan	1	1.0

1. *Amount of Medicine*

Based on **Table IV**, the total number of antihypertensive drugs used in outpatient hypertension patients at the Wonosari Hospital for the November-December 2020 period was more antihypertensive drugs (94.8%) compared to combination preparations. The results of this study are in line with research conducted by Yosinda (2016) at the Panembahan Senopati Hospital; the results showed that from 68 cases of hypertension, there were 77 cases (83.3%) using a single antihypertensive drug and 11 points (16.2%) using combination antihypertensive drugs (Yosinda, 2016). The use of therapy using a combination of 2 antihypertensives is recommended for patients with very high blood pressure, namely the blood pressure value that is far from the target blood pressure value that should be (Dipiro, 2008). The results of the clinical pharmacology research study at the UGM medical faculty regarding pharmacotherapy in the elderly showed a positive correlation between the number of drugs taken and the incidence of drug side effects. That is, the more the number of medications given, the higher the possibility of side effects. The results of other research by Big (2015) stated that patients who received a more significant number of drugs had a higher chance of experiencing non-adherence than patients who only received one type of

drug (Big, 2015). This result follows a study conducted by Katusiime, where the more the number of pills consumed, the patient's burden increases (Katusiime et al., 2018).

2. Therapeutic Classes

Based on **Table IV,** It can be seen that overall, outpatient hypertension patients in Wonosari General Hospital for the period November-December received the most antihypertensive drugs from the CCB group (43.8%), followed by the ARB group (39.6%) and the ACEI group (12.5%). These results are under the reference literature that CCB, ARB, and ACEI groups are part of the drug of choice for hypertension therapy. Treatment of hypertension without comorbidities for the category of stage 1 hypertension with the systolic blood pressure of 140-159 mmHg or diastolic blood pressure of 90-99 mmHg, namely by giving thiazide diuretics and can be considered using ACEI, ARB, CCB or a combination thereof. Whereas for the category of stage 2 hypertension with a systolic blood pressure of 160 mmHg or diastolic blood pressure of 100 mmHg (Dipiro et al., 2015).

The results of this study are similar to the research conducted by Andhyka Ika et al. (2019)at the Selaparang Health Center, which showed that the most widely used antihypertensive drug was the amlodipine CCB group (53.13%). Palupi also conducted similar research, which shows that the use of CCB antihypertensive drugs, especially amlodipine is higher than the use of other antihypertensive groups (Palupi et al., 2013)

3. Generic Name

Table IV found that the most common generic drugs given to hypertensive patients in Wonosari Hospital were amlodipine (43.8%) and candesartan (24.0%). The results of this study are not in line with research conducted by Kavitha (2010) in hypertensive patients at RSMH Palembang, which shows that the most widely administered antihypertensive in hypertensive patients is the ACEI group in the form of captopril (Kavitha, 2010). In this study, the ACEI group was not widely used in antihypertensive treatment at Wonosari Hospital compared to other groups due to the side effects caused by the ACEI group, one of which was a dry cough, so doctors more often prescribed amlodipine CCB group and candesartan ARB group by adjusting clinical conditions. Patient Research conducted by Ikawati et al. (2008) shows the percentage of side effects from using captopril is 43.2%. While in research Andhyka Ika et al. (2019) showed that the incidence of dry cough side effects due to the use of captopril was six events out of 10 respondents who received captopril (60%).

Patient Satisfaction Level

Patient satisfaction is an evaluation of the quality of care and treatment. The outcome variable from the results of measuring the level of patient satisfaction shows the quality and weaknesses of the health service (Mpinga et al., 2011). Patient satisfaction in this study was measured using the patient Satisfaction Questionnaire Short Form (PSQ-18). The PSQ-18

questionnaire revealed seven aspects of patient satisfaction, including general satisfaction with medical care, technical quality, interpersonal behavior, communication, financial aspects, time spent with doctors, access, and convenience (Marshall, GN and Hays, RD 1994). This questionnaire has 18 question items with answer choices strongly agree, agree, doubt, disagree, and strongly disagree.

The results of the analysis of patient satisfaction scores with the PSQ-18 questionnaire in hypertensive patients at Wonosari Hospital are presented in **Table III**.

Table III. Distribution of Respondents' Answers About Satisfaction With the PSQ-18 Questionnaire

Category	Frequency (n = 96)				
	SS	S	N	TS	STS
General Satisfaction	20 (20.8%)	62 (64.6%)	4 (4.2%)	8 (8.3%)	2 (2.1%)
	1 (1.0%)	18 (18.8%)	12 (12.5%)	63 (65.6%)	2 (2.1%)
Technical Quality	1 (1.0%)	10 (10.4%)	10 (10.4%)	68 (70.8%)	7 (7.3%)
	23 (24.0%)	60 (62.5%)	3 (3.1%)	8 (8.3%)	2 (2.1%)
	2 (2.1%)	4 (4.2%)	2 (2.1%)	75 (78.1%)	13 (13.5%)
	15 (15.6%)	66 (68.8%)	9 (9.4%)	6 (6.2%)	0 (0%)
Interpersonal Manner	1 (1.0%)	14 (14.6%)	3 (3.1%)	74 (77.1%)	4 (4.2%)
	36 (37.5%)	55 (57.3%)	0 (0%)	4 (4.2%)	1 (1.0%)
Communication	25 (26.0%)	57 (59.4%)	10 (10.4%)	4 (4.2%)	0 (0%)
	2 (2.1%)	8 (8.3%)	8 (8.3%)	73 (76.0%)	5 (5.2%)
Financial Aspects	0 (0%)	0 (0%)	0 (0%)	96 (100.0%)	0 (0%)

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	0 (0%)	0 (0%)	0 (0%)	96 (100.0%)	0 (0%)
Time Spent with Doctor	4 (4.2%)	12 (12.5%)	9 (9.4%)	69 (71.9%)	2 (2.1%)
	1 (1.0%)	19 (19.8%)	3 (3.1%)	69 (71.9%)	4 (4.2%)
	19 (19.8%)	73 (76.0%)	3 (3.1%)	0 (0%)	1 (1.0%)
Accessibility and Convenience	12 (12.5%)	40 (41.7%)	8 (8.3%)	35 (36.5%)	1 (1.0%)
	1 (1.0%)	14 (14.6%)	11 (11.5%)	66 (68.8%)	4 (4.2%)
	1 (1.0%)	25 (26.0%)	10 (10.4%)	55 (57.3%)	5 (5.2%)

The assessment category using the PSQ-18 questionnaire is divided into two categories: the satisfied category with a total score of >54 and the dissatisfied category with a total score of <54. The scoring value for each question item on the PSQ-18 questionnaire is different because each question item is presented using positive and negative sentences. So that the scoring values for questions 1, 4, 6, 8, 9, and 15 with the order of answers strongly agree, agree, neutral, disagree, and disagree are given numbers 5 to 1, with the answer strongly agreeing with the most significant value. Then for the scoring value in question items 2,3, 5, 7, 11, 12, 13, 14, 16, 17, and 18 with the order of answers strongly agreeing, agreeing, neutral, disagreeing, and disagreeing given a number from 1 to 5, with the answer strongly disagreeing with the most significant value.

The PSQ-18 questionnaire revealed seven aspects of patient satisfaction, including general satisfaction with medical care (*general satisfaction*), technical quality (technical quality), interpersonal behavior (interpersonal manner), communication (communication), financial aspect (financial aspect), time spent with the doctor (time spent with doctor), and access and convenience (accessibility and convenience). The level of satisfaction in each aspect is presented in **Table IV** as follows.

Table IV. Level of Patient Satisfaction on Each Aspect of the PSQ-18 Questionnaire

Satisfaction Aspect	Percentage (%)	
	Satisfied	Not satisfied
General satisfaction	78.6	21.4
Technical quality	88.3	11.7
Interpersonal manner	82.3	17.7
Communication	82.6	17.4

Financial aspects	88.3	11.7
Time spent with the doctor	75.8	24.2
Accessibility and convenience	75.3	24.7

Table IV shows that the highest percentage of patient satisfaction lies in the technical quality and financial aspects (88.3%). The technical quality aspect assesses patient satisfaction with the doctor's service. The results of the diagnosis include the doctor's ability and the hospital staff's service. Then on the financial aspect, patient satisfaction is assessed from the patient's ability to pay for care. These results showed that most outpatient hypertension patients at Wonosari Hospital are satisfied with the services provided by the hospital, especially in terms of technical quality and financial aspects.

Meanwhile, the highest percentage of patient dissatisfaction lies in accessibility and convenience (24.7%). In terms of accessibility and convenience, patient satisfaction is assessed from the results of the doctor's examination, the waiting process, ease of making an appointment with a doctor, the services provided, and the available public facilities. However, the results of this study are not in line with research conducted by Hutasoit et al. (2017)at the Bandung City Health Center, which shows that patient dissatisfaction lies in the interpersonal manner aspect, while the percentage of patient satisfaction lies in the general satisfaction and accessibility and convenience aspects (Hutasoit, 2017). The difference in the results is due to policy standards in each health installation. The analysis results of the satisfaction level of outpatient hypertension patients during treatment at the Wonosari Hospital have presented in **Table V.**

Table V. Distribution of Satisfaction Levels in Outpatient Hypertension Patients at Wonosari Hospital

Satisfaction Category	Total (n = 96)	Percentage (%)
Satisfied	86	89.6%
Not satisfied	10	10.4%
Total	96	100%

Based on **Table V,** it can be seen that the level of satisfaction of outpatient hypertension patients with services obtained during routine control checks at Wonosari Hospital, namely from 96 respondents, 86 respondents (89.6%) of them were satisfied, and as many as ten respondents (10.4%) were dissatisfied. On the services obtained during routine control checks at the Wonosari Hospital. The existence of patient dissatisfaction can be caused by several factors, one of which is the quality of health services. Good service quality is essential in improving service quality and patient satisfaction.

Based on the results of the study showed that most outpatient hypertension patients were satisfied with the health services received during the examination at the Wonosari Hospital. This outcome indicates that the services provided by the Wonosari Hospital have met the patient's expectations because satisfaction can only be achieved if expectations have been appropriately fulfilled. The fulfillment of this expectation is because the hospitals in charge of serving patients have met patient expectations in terms of quality and service. Likewise, the available facilities have been able to meet patient expectations. This research is in line with the study conducted by Suratri et al. (2018)in one government hospital, which showed that overall outpatients were satisfied with the services provided by the hospital (80%) (Suratri et al., 2018).

Therapeutic Compliance Rate

Adherence to therapy is a significant aspect of successfully treating a disease. This study's measurement of therapeutic adherence used the MARS-5 (Medication Adherence Report Scale) questionnaire, which is easy to use in health services. This questionnaire has five questions with answer choices always, often, sometimes, rarely, and never. Each question item is scored with a score of 1-5. In the first question regarding negligence in taking medication, the highest answer with a score of 5, is that most respondents never forget to take their medication (70.8%). Several respondents answered that they were often negligent in taking drugs, namely two people, and the number of respondents who responded rarely was negligent, as many as 13 people and 13 people who answered sometimes. In the second question, 94 respondents claimed to have never changed the prescribed drug dose. It's just that one respondent answered that they often change the prescribed dose, which means they have changed the dose of the drug several times, and there is one respondent who answered rarely. In the third question, the answer from the highest respondent is a score of 5 (82.3%) which means that most respondents never stop consuming medicine for a while. However, two respondents admitted that they often stopped taking their medication for some time, seven admitted that they sometimes, and eight admitted that they rarely stopped taking their medicine for some time. The fourth question was dominated by answers with a score of 5 (99.0%), i.e., many respondents never disobeyed the dosage rules given. Only one respondent admitted that he often did not comply with the dosage rules. The fifth question is also dominated by answers with a score of 5, meaning respondents have never consumed drugs under the recommended dose. The distribution of responses from respondents' assessment results on adherence to drug therapy in hypertensive patients at Wonosari Hospital is presented in **Table VI.**

Table VI. Distribution of Respondents' Answers About Compliance Based on the MARS-5. Questionnaire

Question	n = 96 (%)				
	Always (Score 1)	**Often (Score 2)**	**Sometimes (Score 3)**	**Seldom (Score 4)**	**Never (Score 5)**
I forgot to take my medicine	0 (0%)	2 (2.1%)	13 (13.5%)	13 (13.5%)	68 (70.8%)
I changed my medication dose	0 (0%)	1 (1.0%)	0 (0%)	1 (1.0%)	94 (97.9%)
I stopped taking my medicine for some time	0 (0%)	2 (2.1%)	7 (7.3%)	8 (8.3%)	79 (82.3%)
I decided not to follow the dosage	0 (0%)	1 (1.0%)	0 (0%)	0 (0%)	95 (99.0%)
I took less medicine than the rules listed	0 (0%)	0 (0%)	0 (0%)	0 (0%)	96 (100%)

Assessment categories using the MARS-5 questionnaire are divided into 2, namely the complaint category with a total score of 25 and the non-compliant with a total score of <25. The results of the analysis of the level of adherence to therapy of outpatient hypertension patients undergoing treatment at the Wonosari Hospital are presented in **Table VII** as follows.

Table VII. Distribution of Therapeutic Adherence Rates in Hypertensive Patients in Wonosari Hospital Uses the MARS-5 Questionnaire

Compliance Category	Total (n = 96)	Percentage (%)
Obey	59	61.5%
Not obey	37	38.5%
Total	96	100%

Based on **Table VII,** it can be seen that the level of compliance in undergoing treatment in hypertensive patients at Wonosari Hospital is known that of 96 respondents, 59 respondents (61.5%) are obedient to undergoing treatment. As many as 37 respondents (38.5%) are not compliant in undergoing treatment. These results show that more respondents obey than those who do not. The results of this study align with research conducted by Zyoud (2013); 63% of the

total respondents had a moderate to high level of compliance. Other studies have shown that most hypertensive patients have high adherence (49.1%) (Bolarinwa et al., 2016).

The Relationship Between Patient Satisfaction With Therapeutic Services With Therapeutic Compliance

Fisher's test analyzed the relationship between satisfaction and adherence to therapy in hypertensive patients. The analytical analysis results examined the relationship between patient satisfaction and loyalty to treatment in hypertensive patients can be seen in **Table VIII** as follows.

Table VIII. The Relationship of Satisfaction with Therapeutic Compliance of Hypertensive Patients in
Wonosari Hospital

Patient satisfaction	Therapy compliance		P
	Obey	Not obey	
Satisfied	59	28	0.000
Not satisfied	0	9	

Based on **Table VIII**, most of the respondents who were satisfied with the services obtained at the Wonosari Hospital and were obedient to their drugs were 59 respondents, while the respondents who were dissatisfied and disobedient to the use of their medications were nine respondents. At the same time, the respondents who were satisfied with the services obtained at Wonosari Hospital but did not comply with the help of the drug were 28 respondents, while none of the respondents felt dissatisfied but adhered to the use of the drug. Based on this, it can be concluded that most patients are obedient to the use of their medications and are satisfied with the services obtained during routine check-ups at the Wonosari Hospital.

Data in **Table VIII** shows the results of Fisher's test with a p-value = 0.000 (p <0.05), so it can be concluded that there is a significant relationship between satisfaction and adherence to therapy in hypertensive patients at Wonosari Hospital. The results of this study are similar to the research conducted by Oluwole EO et al. in 2020, which showed a relationship between satisfaction and medication adherence (Oluwole EO et al., 2020). A similar study was also conducted by Olusuyi KM et al. in 2019, which stated a strong and statistically significant correlation between medication adherence and patient satisfaction (Olusuyi KM et al., 2019). The results of this study align with research conducted by Zyoud et al. (2013) concluded that the low quality of treatment services is one of the critical barrier factors to achieving high levels of adherence to treatment (Zyoud et al., 2013).

4. CONCLUSIONS

From the results of research and analysis conducted, it can be concluded that:

1. Of the 96 respondents in the study, as many as 86 patients (89.6%) were satisfied with the health services obtained at Wonosari Hospital, and ten patients (10.4%) were dissatisfied.
2. Of the 96 respondents in the study, as many as 59 patients (61.5%) adhered to their treatment, and 37 patients (38.5%) did not.
3. There is a significant relationship between patient satisfaction and adherence to therapy in hypertensive patients at Wonosari Hospital; it can be seen from the analysis using the Fisher's extract test, the p-value = 0.000 (p <0.05).

5. ACKNOWLEDGMENTS

6. REFERENCES

Ariyani, H. Hartanto D. dan Lestari A. 2018. Kepatuhan Pasien Hipertensi Setelah Pemberian Pill Card di RS X Banjarmasin. *Journal of Current Pharmaceutical Science*. 2 : 81-88.

Cakrawanda, Muhmmad, A. 2019. Kepatuhan Pasien Penderita Hipertensi di Puskesmas Pengasih I Kulon Progo. Skripsi. Fakultas Farmasi Universitas Ahmad Dahlan. Yogyakarta.

Dinas Kesehatan Gunungkidul. 2019. Profil Kesehatan Kabupaten Gunungkidul 2019. Gunungkidul : Dinkes Kabupaten Gunungkidul.

Dipiro J.T., Wells B.G., Schwinghammer T.L. and Dipiro C. V., 2015. Pharmacotherapy Handbook, Ninth Edit., McGraw-Hill Education Companies, Inggris.

Ekarini, Diyah. 2011. Faktor-faktor yang Berhubungan dengan Tingkat Kepatuhan Klien Hipertensi dalam Menjalani Pengobatan di Puskesmas Gondangrejo Karanganyar. Jurnal diterbitkan. Surakarta : Prodi D-III Keperawatan STIKES Kusuma Husada Surakarta.

Iloh GU and Amadi AN. 2020. Treatment Satisfaction, Medication Adherence, and Blood Pressure Control Among Adult Nigerians With Essential Hypertension :75-81.

James PA, Oparil S, Carter BL, Cushman WC, Dennison-Himmelfarb C et al. 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults: Report from the Panel Members Appointed to the Eighth Joint National Committee (JNC 8).

Kementerian Kesehatan RI. 2019. Pusat Data dan Informasi Kemeterian Kesehatan RI (INFODATIN). Biro Komunikasi dan Pelayanan Masyarakat. Kementerian Kesehatan RI.

Kemenkes RI, 2013. Profil Kesehatan Daerah Istimewa Yogyakarta 2013. Yogyakarta: Kemenkes RI.

Lemeshow, S., Hosmer, D.W., Klar, J. & Lwanga, S.K., 1997, Besar Sampel dalam Penelitian Kesehatan. Yogyakarta: Gadjahmada.

Olusuyi KM, et al.,2019. Relationship Between Patient Satisfaction with Medical Careand Medication Non Adherence Among Hypertensive Patient Attending A General Outpatient Department In Southwest Nigeria. Vol 10 (4).

Oluwole EO, et al.,2020. Medication Adherence and Patient Satisfaction among Hypertensive Patients Attending Outpatient Clinic in Lagos University Teaching Hospital,Nigeria. 20 (1) : 1-11.

Sinuraya, R.K., Abdulah, R.,Diantini, A., Suwantika,A.A., 2017.Satisfaction Level of Patients, Physicians, and Private Primary Healthcare Center Managers With Chronic Disease Management Program In Indonesia. *Asian Jurnal of Pharmaceutical and Clinic Reaserch*. 10 : 131 – 135.

Weiss, S. A., & Tappen, R. M. (2015). Nursing Leadership and Management Nursing Leadership (Sixth Edit). Philadelphia: F.A. Davis Company.

Zyoud SH, et al.,2013. Relationship Of Treatment Satisfaction To Medication Adherence: Findings From a Cross-Sectional Survey Among Hypertensive Patients In Palestine. Vol 11 : 121.