Research Article

FACTORS AFFECTING PATIENT SATISFACTION IN JKN SYSTEM: STUDY ON PATIENT CHARACTERISTICS, JKN SERVICES, AND PHARMACY SERVICES

Satibi[1]*, Diah Ayu P[2], Sendy Stefanie L.[3], Putu Dyana C.[3]

[1]Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta, 55281 Indonesia

[2]Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, 55281 Indonesia

[3]Post graduate student , Faculty of Pharmacy, Universitas Gadjah Mada. Yogyakarta, Indonesia, 55281

*Corresponding author
Satibi

Email:
satibi@ugm.ac.id

ABSTRACT

National Health Insurance (JKN) is a health insurance system using mechanisms of social health insurance which is held by BPJS. Satisfaction of participants will affect the sustainability of the system of JKN. Among factors affecting patient satisfaction are patient characteristics, JKN services, and pharmacy services. This study was aimed to examine the influence of patient characteristics, JKN services, and pharmacy services on patient satisfaction in the primary health facilities. This study was analytic study with cross sectional survey design. Data taken quantitatively using questionnaires and equipped with qualitative data obtained from interviews to deepen the findings in the field. The sampling technique used was random sampling for primary health facilities with total sample of 55 health facilities and purposive sampling for a sample of patients with total sample of 300 respondents. Data were analyzed using Chi-Square to examine relationship between patient characteristics with patient satisfaction and linear regression to examine the relationship between services in JKN system with patient satisfaction. Characteristics of patients having significant relationship to the patient satisfaction were education (p=0.020), employment (p = 0.001), income (p = 0.000), and membership status (p = 0.005).There were significant relationship between JKN services (p = 0.000) and pharmacy service (p = 0.000), respectively, to the patient satisfaction. The conclusion of this study was the patient characteristics include education, employment, income and membership status, and service in JKN system includes JKN services and pharmacy services in the era of JKN has a significant relationship with the satisfaction of patients at primary health facilities.

Key words: patient characteristics, JKN services, pharmacy services, patient satisfaction

INTRODUCTION

National Health Insurance (JKN) held in Indonesia from January 1, 2014 as health protection for all Indonesian people so that people obtain health care benefits and protection to fulfill their basic health needs. JKN is organized by BPJS *Kesehatan*. It charge of implementing cooperation agreements with existing health facilities throughout Indonesia so that the implement-tation of health insurance can be implemented nationally (Republik Indonesia, 2011).

The implementation of national health insurance can improve the health of the nation of Indonesia. Therefore it is necessary to monitor and evaluate periodically of the JKN system. Indicator that can be used to measure the success rate of the system is the level of patient satisfaction. Patient satisfaction with JKN system will affect the viability and effectiveness of the system that has been running (Pohan, 2007).

According to Hall and Dornan (1990) factors influencing patient satisfaction among other characteristics of the patient, where the different patient characteristics can provide different behavioral responses satisfied in each individual. According Schoenfelder *et al.* (2010), patient characteristics significantly related to patient satisfaction were age, gender, social

status, and education. Age and education which have a strong relationship with patient satisfaction.

The other hand, the satisfaction of the patient was also influenced by JKN service which includes the premium paid, information services and membership. Premiums paid includes the payment procedure and amount of the premium paid, which is the determining factor for patient satisfaction with health insurance system (Akinci and Sinay, 2003). Research in Ghana showed that 97.9% of people in Ghana do not understand and do not obtain information about the mechanism of the insurance system so that they were not satisfied with the health insurance system in Ghana (Agyei-Baffour, *et al.*, 2013).

Patient satisfaction was also influenced by the health facility services, one of which is a pharmacy services. Pharmacy services include drug availability, service time, and the provision of drug information have a positive effect on patient satisfaction and loyalty (Trimurthy, 2009). According to data in BPJS *Kesehatan*, some of the complaints such as: unavailability of drugs in health facilities or empty medicine, limited supply of drugs for chronic diseases, there are drugs that have not been included in the national formulary so that patients have to pay additional costs of drugs, and the limited provision of relevant information JKN and drugs are given.

The purpose of this studies to analyze the factors that affect patient satisfaction on JKN system, including patient characteristics, JKN services and pharmacy services. Studies performed on outpatients at the primary health facilities in Sleman, Bantul and Yogyakarta. This study is expected to provide input to the Government, health facilities, and BPJS *Kesehatan* to improve the system in providing better health, the services to the community and improve existing JKN system.

MATERIAL AND METHODS
Study design
This study was conducted with analytic cross sectional design. Data were taken quantitatively by using questionnaires. Respondents were asked to fill out a questionnaire and then equipped with qualitative data from interviews to deepen the findings in the field and generate a comprehensive understanding of the phenomenon under investigation in the field.

Location and subject
The study was conducted in primary health facilities ie Primary health centers and clinics in Sleman, Bantul, and the city of Yogyakarta in 2014. The number of health facilities was determined by random sampling obtained by 55 primary health facilities. The sampling method used to determine the amount of the sample was purposive sampling. The sampling method used the formula sample regression analysis and obtained 300 respondents, which is then divided into 150 respondents to measure the effect of JKN services to patient satisfaction and 150 respondents to measure the effect of pharmacy services to patient satisfaction. Respondents were distributed proportionally to each primary health facilities were selected.

The patient were outpatient at the Primary Health Facilities (Puskesmas and Health Clinic) in Sleman, Bantul, Yogyakarta city and over the age of 18 years, all subject selected were JKN participants and not a participant of any other health social assurance; patients willing to participate in this study by completing a questionnaire; cooperative and can communicate well; and have a minimum of 2 times visit to primary health facilities since the enactment of JKN system.

instruments
The study instruments used were two questionnaires, each of which contains questions about the characteristic of patients, a statement with a structured answers regarding various aspects of JKN services for the first questionnaire and pharmacy services in JKN era for a second questionnaire as well as patient satisfaction, and the last was an open question regarding patient complaints and suggestions. The statement in the questionnaire prepared by the legislation in force and practical guidance related to national health insurance system published by BPJS *Kesehatan*.

The questionnaire validity test with Pearson Product Moment method with a valid criteria when the count r> 0.361 and reliability testing with Cronbach's Alpha method with

reliable criteria when Cronbach's Alpha value> 0.6. For the first questionnaire, of 32 items statements regarding JKN services and patient satisfaction with the JKN system as much as 9 items declared invalid question so removed from the questionnaire. For the second questionnaire, of 34 items statements regarding pharmacy services and patient satisfaction the JKN system as much as 9 items declared invalid question so removed from the questionnaire.

Data analysis

The unit analysis is primary health facilities. For statistical analysis of the characteristics of the sample used descriptive statistical analysis, where the analysis is used to describe the overall study sample data. Then, to determine the influence of each group characteristics of patients with patient satisfaction used Chi-Square test, which is considered to have a significant effect if the value of $p <0.05$. To see the effect of JKN services and pharmacy services to client satisfaction used linear regression, which is considered to have a significant effect if the value of $p <0.05$

RESULTS AND DISCUSSION
Descriptive analysis of patient characteristics

This study uses 300 outpatients in primary health facilities in Sleman, Bantul and Yogyakarta.

Descriptive analysis showed most respondents age groups there are in the age range 48-62 years as much as 30.33%. These data indicate that the majority of participants BPJS who use health services are participants aged 48-62 years. According Sumaryanti (2000), the age group most widely used health care services one of which is the elderly, in addition to children and women at the age of parenting. In addition, the older the respondents tendency for more frequent users of health services will be higher.

Respondents with female sex more than male, amounting to 64.33%. Consumption and one's tastes are formed by gender, where there are certain differences between male and female. Female's groups usually use the services or products of health services more than male's group. According to a national survey in the US

showed a conclusion that female have an important role as decision makers in health care, not only for herself but also for her family (Kotler, *et al.,* 2008).

Characteristics of recent education has the highest proportion of respondents who are high school with the percentage of 31.33%. This illustrate that the majority of participants BPJS last education is high at high school. A person's level of education affects one's perspective in the use of health services. High level of education allows a person to process the received information into a certain attitude. A person who has a low education will have a low stance also in the maintenance of health (Notoatmodjo, 2010).

Most respondents work characteristics are as housewives, farmers, or does not work, with the percentage of 35.33%. According to the Central Bureau of Statistics Province DI Yogyakarta, the employment status of a person in a position of doing the job in a business unit / activity is used as an indicator to describe the formal and informal activities. In 2014 the labor force working in the formal activities in DI Yogyakarta with 45.91% and working in the informal activity of 54.09%. Then respondents were obtained in the study were mostly work in the informal sector are as farmers, housewives, as well as self-employed.

Furthermore, the income data it can be seen that the first rank of 34.33% is the group of respondents who have an income of 1-2 million per month. Minimum Wage District / City of Yogyakarta in 2014 is an average of 1.1 million per month so that the average income of residents of Yogyakarta ranged between 1-2 million dollars per month. In addition, the majority of respondents in this study had a job as a self-employed (small traders, rickshaw drivers, craft businesses), farmers, housewives and so their income is not too high.

At the highest percentage of membership status data that equal to 44.33% of the respondents are beneficiaries dues. According to data from BPJS *Kesehatan* 2014, the number of participants receiving tuition assistance reached 1.572.154 inhabitants, while the number of civil servants / pensioners who have registered as participants BPJS as 390.346 inhabitants and the number of participants who registered through a business entity / company

as much as 149.194 inhabitants. From these data it appears that indeed most of the participants BPJS in Yogyakarta is a participant receiving tuition assistance. In addition, because of the health insurance paid by the government as a whole led to high public response to use of health care for itself.

Effect analysis of patient characteristics to patient satisfaction

This analysis is used to prove the existence of the influence of patient characteristics on patient satisfaction in the primary health facilities related to the implementation of JKN system. Data were analyzed using Chi-Square with the limit values of significance (p) of 0.05.

In the analysis of the effect of age differences in patient satisfaction was found that both young age to old age tend to feel satisfied with the service JKN. This means there is no significant relationship between age and the level of patient satisfaction. According Manurung (2010), no significant difference between age and the level of patient satisfaction. All ages both young and old feel satisfied with JKN system that has been running, although there is a tendency of patients with older age tend to feel satisfied with the services provided.

In the analysis of the influence of gender differences in patient satisfaction obtained results that there is no effect of gender differences on satisfaction. Both male and female have the same level of satisfaction of the system JKN, but respondents with female gender is easier to make a complaint compared with male. The majority of female respondents are mothers who have an important role as decision makers in health care, not only for herselves but also for her family (Manurung, 2010).

In the analysis of the effect of educational differences in patient satisfaction obtained that at the higher education level, respondents were dissatisfied more. Each behavior can be satisfied because of influencing by intelligence or knowledge that can be acquired through education. Level of education will be influential in providing a more rational response to the information that came and

would think the extent to which benefits may be derived from the idea (Bauk, *et al.,* 2013).

In the analysis of the effect of different jobs with patient satisfaction was found that the average student / students, self-employed, retired, private employees, as well as housewives or respondents who do not work tend to be satisfied with the service JKN. However, the majority of civil servants (22 of 25) are not satisfied with the system running JKN. This is because there is a difference between the current service system into *Askes* (health insurance) to become participants JKN. This adjustment led to respondents who worked as civil servants are not satisfied with the system running. From the results of analysis show that there is a significant relationship between job satisfaction, where respondents with lower middle jobs tend to be satisfied with the health care system in the facility (Hall and Dornan, 1990).

In the analysis of the effect of differences in income with patient satisfaction showed that most respondents with incomes of small (<1 million) to moderate income (2-3 million) were satisfied with the service JKN. However, some respondents with high incomes (> 3 million) are not satisfied with the service JKN given. From the results of analysis show that there is a significant relationship between income and satisfaction. According Hidayati, et al., (2014) the higher the income, the higher the patient's demand for health services and systems JKN running.

In the analysis of the effect of different membership status with patient satisfaction in mind that there is a significant relationship between membership status with satisfaction. According to Budiman et al., (2010) there are differences in satisfaction between patients who paid the fee independently with who paid by the government or agency work. Respondents that the fee was paid by the government tend to feel satisfied with the existing system because without paying any fees they can receive medical care.

Table I. Patient Characteristics

No.	Characteristics	Parameter	Quantity of Participants	
			n	%
1	Age	18-32 years	62	20.67
		33-47 years	85	28.33
		48-62 years	91	30.33
		>62 years	62	20.67
2	Gender	Male	107	35.67
		Female	193	64.33
3	Education	Elementary school	36	12.00
		Pre elementary school	56	18.67
		High school	94	31.33
		Diploma/graduate	78	26.00
		Post graduate	36	12.00
4	employment	Student	15	5.00
		Entrepreneur	67	22.33
		Civil servant	47	15.67
		Retired	26	8.67
		Private employees	39	13.00
		Etc	106	35.33
5	Income	<1 million rupiah	99	33.00
		1-2 million rupiah	103	34.33
		2-3 million rupiah	51	17.00
		3-4 million rupiah	29	9.67
		>4 million rupiah	18	6.00
6	Membership status	Beneficiaries dues	133	44.33
		Worker wage earners	98	32.67
		Worker not wage earners	69	23.00

Effect Analysis of JKN Services to Patient Satisfaction

To see the effect of JKN services to patient satisfaction used linear regression analysis. JKN services said to have a significant effect on satisfaction if it has a sig (p) <0.05.

In the analysis of the effect of the premium with patient satisfaction was found that there are significant differences in premium paid with satisfaction. According Akinci and Sinay (2003), the most prominent factors of patient satisfaction with the health care system is the amount of insurance premium and payment procedures. The greater the premium paid, the greater the demands of service expected by the participants so that the satisfaction of participants who pay higher premiums to be difficult to achieve. In JKN system, health care differences based on premiums paid only in the inpatient ward facilities. Treatments and drugs given to each class of the same treatment even though premiums are paid different. This is why the participants feel the satisfaction of different based on his experience in acquiring health services and the amount of the premium paid (Agyei-Baffour et al., 2013).

Information services provided are also closely related to the satisfaction of the participants. When participants do not understand or get the right information about the system that applied, the participants feel will be difficult to use or benefit from a system that led to the dissatisfaction of participants to the system (Akinci and Sinay, 2003). According Agyei-Baffour et al.. (2013) and Mulupi (2013), lack of socialization and access to information are causing unsatisfaction with the running health system. People's desirement to take advantage of health insurance is low because it does not have enough information.

Table II. Effect of Patient Characteristics to Patient Satisfaction

Dependent Variabel	Independent Variabel	p	Result
Patient satisfaction	Age	0.767	>0,05; no significant difference between age and satisfaction
	Gender	0.074	>0,05; no significant difference between gender and satisfaction
	Education	0.020	<0,05; a significant difference between education and satisfaction
	Employment	0.001	<0,05; a significant difference between employment and satisfaction
	Income	0.000	<0,05; a significant difference between income and satisfaction
	Membership status	0.005	<0,05; a significant difference between membership status and satisfaction

Tabel III. Effect of JKN Services to Patient Satisfaction

Dependent Variable	Independent Variable	p	Result
Patient Satisfaction	Premium paid	0.017	<0,05; a significant difference between premium paid and satisfaction
	Information services	0.001	<0,05; a significant difference between information services and satisfaction
	Membership	0.000	<0,05; a significant difference between membership and satisfaction
	Premium paid, information services, and membership*	0.000	<0,05; a significant difference between premium paid, information services, and membership simultaneously and satisfaction

*Multiple linear regression

Table IV. Effect of Pharmacy Services to Patient Satisfaction

Dependent Variable	Independent Variable	p	Result
Patient Satisfaction	Drug availability	0.003	<0,05; a significant difference between drug availability and satisfaction
	Service time	0.006	<0,05; a significant difference between service time and satisfaction
	Drug information	0.000	<0,05; a significant difference between drug information and satisfaction
	Drug availability, service time, and drug information*	0.000	<0,05; a significant difference between drug availability, service time, and drug information simultaneously and satisfaction

*Multiple linear regression

According Mulupi *et al..* (2013), fuzziness membership procedures and lack of information in accessing services influence decision of participants to take advantage of the health services available. According to data BPJS *Kesehatan*, some participants do not understand the procedures of participation as a membership registration, the registration form, and procedures for the use of membership cards during treatment at health facilities. This causes the participants were dissatisfied with the system used and can not take advantage of membership facilities.

Effect Analysis of Pharmacy Services to Patient Satisfaction

To see the effect of the pharmacy services to patient satisfaction used linear regression analysis. Pharmacy services said to have a significant effect on satisfaction if it has a sig (p) <0.05.

Public access to the drug is strongly influenced by the availability of drugs. Availability of complete curing will be easier for people to search for the necessary medication needs. Inventory drug will inhibit smooth health care, which would affect patient satisfaction and loyalty (Fakhriadi *et al.,* 2011). Patients were satisfied with the availability of drugs in health centers and clinics *pratama* because getting needed medication as prescribed, although since the introduction of the system JKN number of drugs obtained fewer patients so that patients have to travel back and forth almost every week to obtain the drug.

According Harijono and Soepangkat (2011), the speed of service affects the patient's satisfaction and loyalty. Factors that may affect the service time is the number of patients who visit, the administration process flow, and limitations of medical personnel. If more patients come, the service more relatively slow. Service time will be longer if the health facility is not supported by appropriate medical personnel. This causes the patient satisfaction will vary depending on the readiness of each health facility to implement JKN system.

Drug information services are a provision of activities. The provision of drug information and recommendations are accurate, by the pharmacist to the patient. Provision of clear and complete information can affect patient satisfaction when receiving services (Trimurthy, 2008). According to the results of interviews with some of the respondents, the informations provided by the pharmacy personnel are easy to understand, include of the method of use, time of use, duration of use, storage, but to the information in the form of prohibitions or restrictions when drugs are rarely given. For general information about the patient, the service flow JKN generally well served.

CONCLUSION

There is the influence of patient characteristics include education, employment, income, and membership status on patient satisfaction. There is the influence of JKN services includes premium services, information services, and participation, either partially or simultaneously on patient satisfaction. There is the influence of pharmacy services includes drug availability, service time, and drug information, either partially or simultaneously on patient satisfaction.

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