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A DEMOGRAPHIC PICTURE ON MEDICAL CHECK UP PATIENTS AND ITS ASSOCIATION WITH PATIENT SATISFACTION LEVEL AT X HOSPITAL IN WEST JAKARTA FOR THE PERIOD OF OCTOBER 2018- FEBRUARY 2019

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ABSTRACT

Background: *Nowadays, the trend of non-communicable diseases is increasing around the world. The Sustainable Development Goals (SDG'S) sets the target to decrease number of mortality and morbidity from non-communicable diseases. One of the strategies to achieve the target is by doing medical check-up routine in the hospital. To do medical check-up is affecting by the patient satisfaction with the hospital services. The characteristic of patients can influence the patient to do medical check-up and will affect the satisfaction level with the hospital services. This study aims to examine the demographic characteristic of patients associated with patient's satisfaction level in hospital "X".*
Methods: *This study was a quantitative study used cross-sectional method. The sample in this study was 502 patients during October 2018 to February 2019. The dependent variable in this study was patient's satisfaction. The independent variables were age, gender, residential area, marital status, and patient status in hospital. The data was analysed in univariate and bivariate analysis used Chi-square.*
Results: *The demographic characteristic of patients in hospital "X" were majority female, had aged 50 years and older, married, lived near hospital "X", and actually old patient in the hospital. Bivariate analysis showed that age associated with patient's satisfaction level (p value = 0.000, CI 95%). Meanwhile the other demographic characteristics were not statistically significant with patient's satisfaction.*
Conclusion: *This study showed that majority of the patients who did medical check-up in the hospital "X" had aged 50 years and older, married, lived near hospital "X", and actually old patient in the hospital. The aged of the patient was statistically significant associated with patient's satisfaction. Therefore, the medical check-up service of hospital "X" should be improved based on existing market segment.*

Keywords*: Medical Check Up, demographic characteristic, satisfaction*

INTRODUCTION

According to WHO data in 2018, non-communicable diseases have killed 41 million people each year, it is 71% of the total global deaths. Most non-communicable diseases that cause death are cardiovascular disease (17.9 million), followed by cancer (9 million), respiratory problems (3.9 million), and diabetes (1.6 million) [1].For Indonesia, from the Basic Health Research data of 2018, there was an increase in the prevalence of non-communicable diseases compared to the Basic Health Research data of 2013 [2]

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Non-communicable diseases can be caused by various factors, such as an unhealthy diet, lack of physical activity, smoking habits, alcohol consumption, and so on. There are factors that can be modified, meaning that if it can be detected early, the person can change the lifestyle so that the disease can be controlled. Early detection, screening treatment for non-communicable diseases, and access to palliative services are important components in dealing with non-communicable diseases. Interventions that have a major impact on reducing non-communicable diseases are the health facilities that are more accessible to strengthen early detection or screening. This intervention has proven to be a very good economic investment because if the patients can be treated early it can reduce the need for more expensive treatments [3]

The third target of the Sustainable Development Goals (SDGs) is to ensure healthy living and improve well-being for all ages, where target 3.4 is in 2030, one-third of premature deaths from non-communicable diseases can be reduced through preventive, curative, and improved health and mental well-being. Preventive health services have been introduced in many countries because the results of the research show that countries can make early detection of diseases where preventive efforts contribute to reducing the need for curative health services [1].

Hospital is a health care provider facility that needs to continue to improve the quality of its services. In addition to medical or curative and rehabilitative services, the hospital also has promotive and preventive functions one of them is through the Medical Check Up unit [4]. The Medical Check Up Unit or hereinafter abbreviated as MCU is a service unit in the hospital that carries out preventive functions through early detection of disease.[4] X Hospital is one of the hospitals in West Jakarta that is in the middle of developing a Medical Check Up unit. The factors that influence patient satisfaction need to be considered as evaluation material for the progress of Medical Check Up services and to make marketing strategies in the future.

Patient satisfaction is an important measure of healthcare quality as it offers information on the provider's success at meeting clients' expectations and is a key determinant of patients' perspective behavioral intention [5]. Patient satisfaction is a level of patient's feelings as a result of the performance of health services he/she gets after the patient compares it with what he/she expected. Patient satisfaction is the output of health services so that new patients will feel satisfied if the performance of health services he/she gets is the same or exceeds the expectations, and vice versa, dissatisfaction will arise if the performance of health services he/she gets is not in line with his/her expectations. Patient satisfaction is influenced by many factors, one of which is the patient's demographic status [6].According to Anderson's theory, utilization of health services is influenced by predisposing factors, enabling factors, and need factors. Predisposing factors include demographic characteristics (age, sex, and marital status), social structure (race, education, work, culture), and individual attitudes and beliefs. The enabling factors include the perception of health services and access to services. While the need factor is a person's need for health services [7].

Several studies have shown a relationship between demographic status and patient satisfaction at the hospital. The study conducted by Montol in 2014 drew conclusions about the relationship between age, sex, and occupation on patient satisfaction at the Ratahan Health Center [6]. Another study conducted by Rizal and Jalpi showed a relationship between age, occupation, and distance of the patient's residence to the health center with patient satisfaction at the Banjarmasin Health Centers [8].

This study will provide an overview of the demographic status of MCU patients in Hospital X as well as the relationship between demographic characteristics (age, sex, marital status), access to services (proximity of the residence to hospital), and patient status in hospitals with patient satisfaction to health services in the hospital, especially in the Medical Check Up Unit.

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METHOD

This study was a cross-sectional study by collecting data on Medical Check Up patients and satisfaction surveys at X Hospital in West Jakarta from October 2018 to February 2019. The data used are primary data collected directly by the researcher. The total number of patients with valid data was 502 patients. This study did not use samples but took all the existing population. The dependent variable of this study is patient satisfaction in using Medical Check Up services at X Hospital in West Jakarta. While the independent variable is the patient's demographic characteristics: age, sex, Location of Residence, marital status, and patient status regarding whether he or she is the old patient or a new patient in the hospital. The method of data collection for demographic data was by looking at the patient's identity in the Hospital Information System (Teramedik). Whereas, the method of data collection for patient satisfaction was by using questionnaires consisting of several questions from several aspects, such as: friendliness of staff, expertise, and skills of medical personnel, speed of service, clarity of information, and facilities. Satisfaction was measured by 5 options: Excellent, Good, Quite Good, Enough, and Bad. Patients who were considered satisfied were those who answer Excellent, Good, Quite Good. Questionnaires were given after the patients completed the Medical Check Up examination. The bias that might occur was when the patients were in a hurry to fill out the questionnaires and only answered Good without reading.

Statistical analysis carried out was univariate and bivariate analysis using the SPSS version 21. Univariate analysis was used to obtain a description of the frequency distribution of each variable studied, both the dependent variable and the independent variable. The results of this analysis would be displayed in the form of narratives and tables. The bivariate analysis was used to determine the relationship between independent variables and dependent variables using statistical tests. The analysis used the SPSS version 21 with a significant level (α) of 0.05. In this study, the chi-squared test was used as the statistic test [9]

RESULTS

The number of respondents who were willing to take part in this study was 502 respondents, They were patients using Medical Check Up service at X Hospital from October 2018 to February 2019. The distribution of the respondents' demographics is shown below.

	Group	The number of the people	%
Age	$\leq$ 20 years old	1	0.20%
	21-30 years old	24	4.78%
	31-40 years old	89	17.73%
	years old	116	23.11%
	>50 years old	272	54.18%
Sex	Male	201	40.04%
	Female	301	59.96%
Marital Status	Married	176	35.06%
	Single	326	64.94%
Location of Residence	Near the hospital	364	72.51%
	Far from the hospital	138	27.49%
Patient's status in the hospital	Old Patient	299	59.56%
	New Patient	203	40.44%

From the table above, it can be seen that from the demographics of X Hospital Medical Check Up patients in West Jakarta, in the age group, most patients were > 50 years old (54.18%), based on the sex, there are more women (59.96%) compared to men, based on the marital status, there were more married people (64.94%), based on the residence, most of the patients lived near the hospital (72.51%)

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compared to those who lived far from the hospital, and based on the patient status, in the hospital there were more old patients (59.56%) than new patients.

Overall, the level of patient satisfaction of Medical Check Up (MCU) reached 99.6%. Whereas, from the point of view of the relationship between the demographic characteristics above and patient satisfaction, then:

Relationship between Patient's Age and Satisfaction of Medical Check Up at X Hospital

Table 1   Relationship Between Patient's Age and Satisfaction

| Age | Satisfaction | | | | P Value |
| | Satisfied | | Not Satisfied | | |
	Σ	%	Σ	%	
≤ 20 years old	0	0	1	0.2	
21-30 years old	24	4.8	0	0	
31-40 years old	89	17.7	0	0	0.000
41-50 years old	116	23.1	0	0	
> 50 years old	271	54.0	1	0.2	
Total	500	99.6	2	0.4	

Patients using Medical Check Up at X Hospital studied in October 2018- February 2019 were dominated by patients aged > 50 years old, 271 people (54%) were satisfied and 1 person (0.2%) was not satisfied, then for the age of 41- 50 years old, 116 people (23.1%) were satisfied, for the patients aged 31-30 years old, 89 people (17.7%) were satisfied, for the patients aged 21-20 years old, 24 people (4.8%) were satisfied and for the patients aged < 20 years old 1 person (0.2%) was not satisfied with the services provided by Medical Check Up at X Hospital

From the data analysis of the relationship between patient age and satisfaction using the Chi-Square test, a significant value of p = 0.000 (p. Value <0.05) was obtained. it shows that Ho (null hypothesis) is rejected and Ha (alternative hypothesis) is accepted that there is a relationship between Patient's Age and satisfaction.

Relationship Between Patient's Sex and Satisfaction

Table 2 Relationship Between Patient's Sex and Satisfaction

| Sex | Satisfaction | | | | P Value | OR (95%Cl) |
| | Satisfied | | Not Satisfied | | | |
	Σ	%	Σ	%		
Male	201	40.0	0	0.0		1.007
Female	299	59.6	2	0.4	0.247	(0.997-1.016)
Total	500	99.6	2	0.4		

In the patients using Medical Check Up at X Hospital studied in October 2018- February 2019, 299 females (59.6%) were satisfied and 2 females (0.4%) were not satisfied and 201 males (40.0 %) were satisfied with the service.

From the data analysis of the relationship between patient sex and satisfaction using the Chi-Square test, a significant value of p = 0.247 (p.value> 0.05) was obtained. it shows that Ho (null hypothesis) is

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accepted and Ha (alternative hypothesis) is rejected, it means that there is no relationship between patient's sex and satisfaction.

Relationship Between Patient's Marital Status and Satisfaction

Table 3 Relationship Between Patient's Marital Status and Satisfaction

Marital Status	Satisfaction				P Value	OR (95%Cl)
	Satisfied		Not Satisfied			
	Σ	%	Σ	%		
Single	176	35.1	0	0.0		1.006
Married	324	64.5	2	0.4	0.298	(0.998-1.015)
Total	500	99.6	2	0.4		

Regarding the marital status, 324 (64.5%) married patients were satisfied and 2 (0.4%) patients at X Hospital were not satisfied with the Medical Check Up and 176 single patients (35.1%) were satisfied with the service.

From the data analysis of the relationship between the patient's marital status and satisfaction using the Chi-Square test, a significant value of p = 0.298 (p.value> 0.05) was obtained. it shows that Ho (null hypothesis) is accepted and Ha (alternative hypothesis) is rejected so there is no relationship between the patient's marital status and satisfaction.

Relationship between Patient's Location of Residence and Satisfaction

Table 4   Relationship between Patient's Location of Residence and Satisfaction

Location of Residence	Satisfaction				P Value	OR (95%Cl)
	Satisfied		Not Satisfied			
	Σ	%	Σ	%		
Near the hospital	363	72.3	1	0.2		2.650
Far from the hospital	137	27.3	1	0.2	0.475	(0.989-1.020)
Total	500	99.6	2	0.4		

Based on the location of the residence, 363 (72.3%) Medical Check Up patients at the X Hospital who lived near the Hospital were satisfied and 1 person was not satisfied. And 137 patients (27.3%) living far from the hospital were satisfied with the Medical Check Up and 1 person (0.2%) was not satisfied with the service.

From data analysis of the relationship between the patient's location of residence and satisfaction using the Chi-Square test, a significant value of p = 0.475 (p.value> 0.05) was obtained. it shows that Ho (null hypothesis) is accepted and Ha (alternative hypothesis) is rejected so there is no relationship between the patient's location of residence and satisfaction.

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Relationship between Patient's Status and Satisfaction of Medical Check-Up at X Hospital

Table 5 Relationship between Patient's Status and Satisfaction

Status	Satisfaction				P Value	OR (95%Cl)
	Satisfied		Not Satisfied			
	Σ	%	Σ	%		
Old patient	298	59.4	1	0.2		1.475
New patient	202	40.2	1	0.2	0.782	(0.990-1.013)
Total	500	99.6	2	0.4		

Based on the status of the patient, 298 (59.4%) old Medical Check Up patients at Hospital X Patients were satisfied and 1 old patient was not satisfied. While 202 (40.2%) new patients were satisfied and 1 new patient (0.2%) was not satisfied with the service.

From the data analysis of the relationship between the patient's status and satisfaction using the Chi-Square test, a significant value of p = 0.782 (p.value> 0.05) was obtained. this shows that Ho (null hypothesis) is accepted and Ha (alternative hypothesis) is rejected so there is no relationship between the patient's status and satisfaction.

DISCUSSION

One effective way to alleviate the burden of health care spending and reduce the prevalence of chronic diseases is by developing preventive services. A study conducted by Yong Kang Cheah in Penang, Malaysia wanted to see what sociodemographic factors influence the demand for preventive services. The variables used were age, ethnicity, sex, marital status, health insurance, location of residence, family medical history with serious disease, educational background, individual income, exercise habits/physical activity, and personal perceptions of health. As a result, their preventive services were dominated by patients with an average age of 36 years old, 57% of females, 61% of married patients, 65% of patients with health insurance, 81% of patients living in urban areas.[6] When compared it with the results of this study, the highest sociodemography of Medical Check Up users in X Hospital is patients aged > 50 years old. This shows that there are more patients in the older age in Indonesia than in Malaysia. This could be caused by older patients who feel that they have a lot of diseases, which encourages them to do MCU examinations [10].For the sex category, 59.96% of Medical Check Up users at X Hospital were females. This could be caused by the screening examination that is only intended for women such as Pap smear and mammography. This is in line with the study in Penang which also showed more females than male. From the marital status, 64.94% of Medical Check Up patients at X Hospital were married, this is also in line with studies conducted in Penang. For the location of residence, 72.51% of patients with Medical Check Up at X Hospital lived near the hospital. The previous study had different variables regarding the location of residence which are in urban and rural areas, with the results of urban areas as the dominant variable. This can be related to easier access to health facilities [11].

According to Anderson's theory, demographic status can affect a person's satisfaction, such as age, sex, education, employment, and income.#

Relationship between Patient's Age and Satisfaction of Medical Check Up at X Hospital

From the statistical test results, there was a relationship between the patient's age and satisfaction with the MCU health services at the X Hospital, where the ρ value was 0,000 < α (0,05). This could be caused

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by younger age groups who tend to be more demanding and expect a lot from the performance of health services and tend to criticize [13]. This is in line with the research conducted by Montol (2014) regarding the study of patient satisfaction with Jamkesmas services at Ratahan Health Center, which stated that there was a relationship between patient's age and satisfaction [6]. This research is also in line with research conducted at the PHC in Banjarmasin City, which stated that there was a relationship between the patient's age and satisfaction, but the results were slightly different. According to Rizal, patients with productive age have greater demands and expectations and tend to criticize basic health services compared to patients with older age [8]. However, this result is different from the research conducted at Tuminting Manado Health Center which showed the absence of a relationship between the patient's age and satisfaction [12].

Relationship between Patient's Sex and Satisfaction of Medical Check Up at X Hospital

According to Notoatmojo in Abdillah, in one family, a man who is the head of the family tends to protect or intervene to provide a sense of security for his family. Men also tend to influence women more in giving opinions or considerations to do something. While according to Lumenta in Abdillah, men are more demanding and have high expectations about the performance of health services and tend to criticize[13]. . From the results of statistical tests, there is no relationship between the patient's sex and satisfaction in Medical Check Up services at X Hospital where the ρ value $0.247 > \alpha$ (0.05). This is in line with the research by Fitriyana, et al in the Tuminting Manado and Rizal's research in PHC in Banjarmasin which also stated that there was no relationship between the patient's sex and satisfaction [8,12]

Relationship between Patient's Marital Status and Satisfaction of Medical Check-Up at X Hospital

Married individuals may provide lesser social and economic supports to their spouse if they were sick. Meanwhile, married individuals did also carry more responsibilities to look after their family. As a result, married individuals were more aware of their own health than the unmarried [10]. From the results of statistical tests, there is no relationship between the patient's marital status ad satisfaction in Medical Check Up services at X Hospital where the ρ value $0.247 > \alpha$ (0.05).

Relationship between Patient's Location of Residence and Satisfaction of Medical Check Up at X Hospital

Geographical access is one aspect that determines patients' consideration in choosing health facilities. Easily accessible locations influence patient satisfaction in utilizing health facilities [11]. From the results of statistical tests, there is no relationship between the patient's location of residence and satisfaction in Medical Check Up services at X Hospital where the ρ value $0.475 > \alpha$ (0.05). This is in line with research conducted by Rizal at the PHC in Banjarmasin [8].

Relationship between Patient's Status and Satisfaction of Medical Check-Up at X Hospital

Existing patients are patients who had a medical examination at X Hospital, who then come back because they are satisfied with the previous service.. From the results of statistical tests, there is no relationship between patient's status in the hospital and the patient satisfaction in Medical Check Up services at X Hospital where the ρ value $0.782 > \alpha$ (0.05).

CONCLUSION
The study of patients using Medical Check Up at X Hospital conducted from October 2018 to February 2019 was dominated by patients aged > 50 years and there was a relationship between the patient's age

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and the patient's satisfaction. Most of the patients were females and they were mostly satisfied with the service, but there is no relationship between the patient's sex and the patient's satisfaction. Most of the patients were married patients and most of them were satisfied with the service. There is a relationship between the patient's marital status and patient's satisfaction. Most of the patients were those who lived near the hospital, they were mostly satisfied with the service but there was no relationship between the patient's location of residence and patient's satisfaction. Based on the status of the patient in the hospital, most of the patients were old patients who were satisfied with the service, but there is no relationship between the status of the patient with the patient's satisfaction.

The results of this study can describe the characteristics of the patients in Medical Check Up which can then be developed by the Hospital by providing an MCU inspection package that suits their needs. In addition, this study can also present the level of satisfaction of MCU patients and factors related to the satisfaction. Despite that, this study also has limitations, patients who were in a rush to fill out the questionnaires were feared to answer non-seriously. This research is expected to increase the number and level of satisfaction of MCU patients.

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