

# FACTORS AFFECTING PATIENTS' SATISFACTION WITH GENERAL PRACTITIONERS CONSULTATIONS AT PALEMBANG HEALTH CENTERS, INDONESIA

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**ABSTRACT:** This cross-sectional on descriptive study was conducted to identify the socio-demographic characteristics of patients, medical factors, and consultation length that influence patients' satisfaction with consultations in Palembang health care centers in Indonesia during January 20 to February 20, 2011. A consultation satisfaction questionnaire was administered to 312 patients attending general practitioners in 10 health centers. Chi-square tests and multiple logistic regressions were undertaken to identify variables related to patients' satisfaction with consultations. The results showed that 88.14% of the respondents had low satisfaction and 11.86% had high satisfaction. The only socio-demographic characteristic associated with satisfaction with consultations was education level (p-value <0.01). Medical factors associated with satisfaction were type of insurance (p-value <0.001), drug/medical equipment prescriptions (p-value <0.001), and health center workloads (p-value <0.001). After adjusting other factors, patients not using free scheme insurance were more likely to have low satisfaction with consultation (OR 3.72, 95% CI 1.27-10.89). Patients who received prescriptions were the least likely to have low satisfaction level (OR 0.09, 95% CI 0.04-0.22). In conclusion, this study found that type of insurance and drug prescriptions were the main predictors of satisfaction with consultations. Health centers need to review the service given to each type of insurance to ensure a balance between patients' satisfaction and health centers' ability to fulfill them. The importance of giving proper and correct information about patients' illnesses is stressed to educate patients expecting prescriptions from the doctors.

**Keywords:** general practitioner consultations, patients' satisfaction, health centers

## INTRODUCTION

Patients' satisfaction has been attracting growing interest in health care quality evaluation. Health care services such as health center as primary care unit is expected to be more responsive to the requirement of patients. Development in recent years has also included different aspect of satisfaction such as satisfaction with consultations [1, 2]. However, there has been little report on factors affecting satisfaction with consultations, especially in health centers in developing countries.

Studies carried out about satisfaction with consultations have been mainly based in developed countries [3-5] whose health systems are different from the health systems of developing countries such as Indonesia. Indonesia is a developing country with a population of more than 200 million, most of who live in urban areas.

Palembang, one of the many big cities in Indonesia, has a population of more than 1.5 million and 39 health centers scattered unevenly throughout the city. As a result, the number of outpatient visits per health center ranges from 15 patients per day to more than 200 patients per day. This has resulted in

a long list of patients daily, which limits the ability of health centers to provide as much consultation time as each patient desires or expects from the health centers. The fact that some health centers only provide limited patient consultation time for each patient does not necessarily mean that the patients are dissatisfied with such consultations [5-7]. Other factors also influence consultation satisfaction and research is needed to identify and investigate these factors that influence satisfaction with consultations in health centers.

Shorter consultations are usually related to lower satisfaction rates, but most often that is not the case. Although several surveys indicate that length of consultation is the main cause of dissatisfaction for patients in primary care units, only a small increase in satisfaction is observed after the consultation time is lengthened [3, 5, 8].

Previous studies [1, 3, 4, 9, 10] have confirmed that many factors are related to patient's satisfaction with consultations. Patient characteristics such as gender and age were associated with low satisfaction. An increasing total list of patients was also associated with falls in satisfaction (p<0.05). Moreover, other factors were strongly associated with consultation satisfaction such as health center workloads and personal list system (p<0.001).

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Many studies [1, 3, 5, 9, 11] explained that there are other factors apart from duration of consultation that affect consultation satisfaction. Even though doctors with long patient lists have limited time for consultations, something that is very difficult to change, they can work on other factors to increase satisfaction with consultations.

This study, therefore, aimed to identify factors related to satisfaction with consultations and describe the relationships between them.

## MATERIALS AND METHODS

This cross-sectional on descriptive study was conducted to describe the relationship between patients' satisfaction with general practitioner consultations in health centers in Palembang with following independent factors: patients' socio-demographic characteristics, medical factors, and perceived and expected duration of consultations in minutes. After getting the approval from the ethics committee of Mahidol University Institutional Review Board (COA. No. MU-IRB 2011/001.0401), the consultation satisfaction questionnaire (CSQ) was pre-tested for reliability by selecting 30 patients from one health center in Palembang with the result of Cronbach-Alpha test of 0.705. This health center then was excluded from multiple stage sampling method to select 10 health centers in Palembang. To obtain large sample size, a confidence interval of 95%, acceptance error of 6%, proportion of patients' satisfaction of 50%, and adjusted value of 10% for missing and incomplete data were used to estimate the sample size to be 312 patients. Afterwards, they were interviewed by structured questionnaire from January 20, 2011 to February 20, 2011.

The consultation satisfaction questionnaire (CSQ) used in this study comprised of 18 questions [12, 13]. This questionnaire addressed four aspect of consultation: general satisfaction, professional care, depth of relationships, and perceived time. An overall score and a mean value were calculated from each patient, with the lowest and the highest possible mean values being 1 and 5, respectively. The cut-off point of satisfaction was 80% of the highest possible mean value. Mean value under the cut-off point was categorized to "low satisfaction" and mean value above the cut-off point was categorized to "high satisfaction" [14].

Processed data were analyzed using MiniTab software. The dependent variable was satisfaction with consultation, categorized into 'low satisfaction' or 'high satisfaction'. The independent variables were patients' socio-demographic characteristics, medical factors, and consultation length. Associations between the independent variables and dependent variable were calculated using Chi-square tests or Fisher-exact tests. Independent variables having a significant association with patients' satisfaction with consultation were then further analyzed using multiple logistic regressions.

**Table 1** Independent variables

Medical factors	Number	Percent
<b>Type of health insurance</b>		
Free scheme government insurance	151	48.40
Not using free scheme insurance	160	51.60
<b>Reasons to visit/health problems</b>		
Acute disease-first visit	112	35.90
Acute disease-repeat visit	79	25.32
Chronic disease-first visit	8	2.56
Chronic disease-repeat visit	90	25.64
Preventive medical examination	30	9.62
Drug/medical equipment prescription	83	26.6
Administrative reason	28	8.97
Consultation for relatives	10	3.21
<b>Health center workloads</b>		
Less than 100visits/day	184	58.97
100visits or more/day	128	41.03
<b>Perceived consultation length group</b>		
<5 minutes	83	27.30
5 minutes and more	221	72.70
Median : 5		
Inter-quartile range:6		
<b>Expected consultation length group</b>		
<10minutes	139	46.18
10 minutes and more	162	53.82
Median: 10		
Inter-quartile range: 10		

## RESULTS

A total of 312 questionnaires were completed by respondents from 10 health centers. There were 184 respondents (58.97%) from 4 high workload health centers and 128 respondents (41.03%) from 6 low workload health centers. More than half (63.14%) of the respondents were female and 36.86% of them were male. 52.09% of the respondents were aged 40 years old or more and 47.91% were aged less than 40 years old. Married respondents were over-represented in this study; 73.72% of the respondents were married, 19.55% were single, and 6.73% were divorced. Regarding education level, 41.03% of the respondents had low education background (elementary or junior high school) and 58.97% had high education background (senior high school or above). Almost half of the respondents (48.08%) were employed and 51.92% of them were not. The results of satisfaction with consultations indicated that 88.14% of the patients had low levels of satisfaction and only 11.86% had high levels of satisfaction. Table 1 shows the independent variables which are not mentioned in this paragraph.

The result in Table 2 shows that the following variables had significant associations with patients' satisfaction with consultations: education level (p-value <0.01), type of insurance (p-value <0.001), drug/medical equipment prescriptions (p-value <0.001), health center workloads (p-value <0.001), and expected consultation length (p-value <0.05). Then, these variables were included in multiple logistic regression analyses to find which variables were the best predictors for satisfaction with consultations. Table 3 shows that type of insurance

**Table 2** Associations between independent variables and patient satisfaction with consultations.

Independent variables	Crude OR	95 % CI		P -value
		Lower	Upper	
<b>Education level</b>				
Lower education	0.33	0.16	0.68	0.002**
Higher education	1			
<b>Type of Insurance</b>				
Free scheme government insurance	1			
Others	5.42	2.30	12.76	<0.001***
<b>Health center workloads</b>				
< 100 visits/ day	1			
100 or more visits/day	6.77	2.34	19.64	<0.001***
<b>Drug/medical equipment prescription</b>				
No	1			
Yes	0.09	0.04	0.21	<0.001***
<b>Expected consultation length</b>				
10 minutes or more	2.39	1.17	4.90	0.017**
Less than 10 minutes	1			

High satisfaction (Reference), \* p-value <0.05, \*\* p-value <0.01, \*\*\* p-value <0.001

**Table 3** Adjusted OR and 95% CI for OR from Multiple Logistics Regression

Independent variables	Adjusted OR	95 % CI		P -value
		Lower	Upper	
<b>Education level</b>				
Lower education	0.94	0.38	2.32	0.885
Higher education	1			
<b>Type of Insurance</b>				
Free scheme government insurance	1			
Others	3.72	1.27	10.89	<0.017**
<b>Health center workloads</b>				
< 100 visits/ day	1			
100 or more visits/day	3.17	0.93	10.81	0.065
<b>Drug/medical equipment prescription</b>				
No	1			
Yes	0.09	0.04	0.22	<0.001***
<b>Expected consultation length</b>				
10 minutes or more	1.60	0.70	3.70	0.268
Less than 10 minutes	1			

High satisfaction (Reference), \* p-value <0.05, \*\* p-value <0.01, \*\*\* p-value <0.001

and drug/medical equipment prescriptions were statistically significant as the best predictors for patients' satisfaction with consultations at p-value <0.001. After adjusting other factors, patients not using free scheme insurance were more likely to have low satisfaction by 3.72 times (OR 3.72, 95% CI 1.27-10.89) and patients receiving prescriptions were less likely to have low satisfaction with consultation (OR 0.09, 95% CI 0.04-0.22).

## DISCUSSION

The patients who participated in this study were all selected from health centers in Palembang. The findings of this study are important as a contribution to improving health care quality in health centers.

Chi-square tests found that education level, health center workloads, expected consultation length, type of insurance, and having prescription had significant relationships with patients' satisfaction with consultation. From these five variables, only the type of insurance and having prescriptions were significant enough to be predictors of satisfaction with consultations.

The only socio-demographic characteristic with significant relationship was education level. Patients with low education (elementary and junior high schools) were less likely to have low levels of satisfaction (Crude OR: 0.33, 95%CI: 0.16-0.68). This finding was similar to previous studies [15-19] in several countries such as Thailand, United Arab

Emirates, and Jordan. These studies found that less education had a positive relationship to greater satisfaction level.

There was a significant relationship between health center workloads and consultation satisfaction. Health centers with more visits had a difficulty maintaining personalized individual care and providing sufficient time for consultations. Practices which are bigger will have a difficulty offering a personal service [9, 20, 21].

Patients expecting 10 minutes or more for their consultation were more likely to have low satisfaction with consultations than those expecting less than 10 minutes (Crude OR: 2.39, 95%CI: 1.17-4.90). The explanation for this finding can be found in Baker's pragmatic theory of satisfaction [20]. Baker's theory explains that patients' expectation is a factor that affects the outcome of consultation satisfaction. Patients' characteristics such as their socio-demographics, experience of care and expectations may have direct associations with level of satisfaction and their future compliance to recommended health regimens [1, 9, 18, 20].

Multiple logistic regressions showed only two variables were statistically significant to be the predictors of consultation satisfaction; the type of insurance and having prescriptions. Patients who did not use free scheme insurance had lower satisfaction with consultations (Adjusted OR 3.72, 95%CI 1.27-10.89) because they had less coverage for their illnesses than patients who used free scheme insurance. Patients also felt satisfied if they paid less for the service/drugs they received [1], compared to other type of insurance which require the patients to pay monthly fees. This way, patients using free scheme insurance can visit health centers as many times as they wish. This type of insurance is particularly useful for patients who have to visit the doctors many times, such as patients with chronic diseases.

Receiving prescriptions was the strongest predictor of consultation satisfaction. Patients in this study had the least likelihood of having low levels of satisfaction if the doctors gave them prescriptions (Adjusted OR: 0.08, 95%CI: 0.04-0.19). These findings are not different from eastern and developing countries. Patients in developing countries regard their relationships with their doctor highly if the doctors give them a prescription [1]. Most patients in eastern and developing countries still perceive that doctors will always give them a prescription at the end of a consultation; prescriptions are often regarded as a representation of a doctor's knowledge and skills.

However, there were problems that could affect satisfaction with consultation which were not taken into account in this study. Problems such as very crowded waiting rooms, a very high patient turnover, and doctors' styles of consultation (calling

several patients at once to examination rooms) were noted at the time of data collection and might interrupt the consultations and affect patients' satisfaction.

## RECOMMENDATION

Numerous factors were found influencing satisfaction. Some of these factors such as education level and patients' expectation with consultation length are difficult to change. Therefore we must look for factor that can be modified to improve patients' satisfaction with consultation such as health center workloads. Since the previous appointment system cannot accommodate the needs of the patients, which results in high workloads, a better appointment system should be applied to reduce problems such as a very crowded waiting room.

Patients are more satisfied if they received more information from their doctor, such as why they do not need any prescription, therefore doctors should spend their time in a consultation wisely and effectively. A training to improve doctor's skills in consultation can be held by district health office. Calling several patients at once to an examination room should be avoided at all cost since it may affect personal relationship with the doctor and compromise doctor's professionalism.

In the end, satisfaction with consultation is a multidimensional concept. Further studies can be conducted to explore other factors that may affect satisfaction with consultation such doctors' socio-demographic characteristics, job satisfaction and styles of consultation.

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