

## Patient Satisfaction with Health Care Services Delivered at the Out Patients Department-Case Study-at Teaching Hospital Karapitiya Sri Lanka

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### Abstract

A cross-sectional study was conducted on patient satisfaction with health services at the Out Patient Department of Teaching Hospital Karapitiya, with the aim determining the relationship between satisfaction and explanatory factors. Suggestions and comments from the patients were also revealed in this study. Using a structured questionnaire, data were derived from 251 patients using the OPD services. Descriptive statistics were used to describe satisfaction level and independent variables while the relationships between these factors were determined by Chi-square test. The average score of patient satisfaction was 3.5 and 10.4% of the patients were highly satisfied with health services.

Patients were highly satisfied with courtesy (45.8%), quality of care (44.2%), physical environment (41.8%), convenience (24.7%), and out of pocket cost (23.5%). Regarding predisposing factors, attitude were significantly associated with level of satisfaction ( $p=0.002$ ). The majority of the patients were concerned about waiting time to seek a doctor's service and counter services are being delayed due to not enough staff being available. Strategies emphasizing improving the image of the hospital should be continuously implemented while the attitude of the patients could change with good reputation of hospital. Patient satisfaction surveys can be conducted in each unit to get the real picture for further strategies.

**Keywords:** Patient satisfaction; Outpatient department; Health services

### Introduction

Measuring patients' satisfaction has become an integral part of hospital management strategies for quality assurance and accreditation process in most countries, distinguishing that lack of sufficient data can severely inhibit an organization's ability to understand its strengths and to target areas in which performance can be improved. Measuring patient satisfaction is a way of assessing the process of care, describing the patient's viewpoint, and evaluating care by reflecting patient views back into the system and through comparing facilities. Sri Lanka has been spending a considerable amount of revenue for health and education every year. The productivity of the free health care and free education is clearly shown by the improvements of the above indicators [1-4].

Sri Lanka recognized quite early the importance of the government role and higher spending on health. Reasonably good economic conditions have facilitated higher government spending on health, education, housing and food during the 1950s and 1960s [2]. Ministry of Health, Sri Lanka, 2006, highlighted that transitions in the epidemiology and demography, which have resulted in the classical double burden of diseases, combined with a rapidly ageing population have impelled the urgent need for more innovative forms of health care delivery and health care financing.

In fact the costs of health care delivery are rapidly increasing at such a rapid pace that quite often the government faces constraints to maintain its cherished principle of high quality public sector health free at the point of delivery. However this provision being an unbending commitment of the government will not be compromised at any cost. This means that we will need to introduce innovative schemes of financing our health care, including a judicious use of public-private partnerships, while continuing to maintain the principle of an absence of direct user fees all the time. Perera, 2003 described that there is a growing interest among public on quality of health care and it has been already demonstrated by a few incidents in the recent past, which went

to courts challenging the quality care service provided by public, as well as private health institutions. A lot of complaints from patients and adverse mass media reports have demonstrated unsatisfactory services in health institutions [3].

### Objective

The paper estimates the assessment of level of satisfaction of patients who have utilized the OPD services at the Teaching hospital Karapitiya. And to identify the factors related to patients satisfaction (Figures 1 and 2).

### Methodology

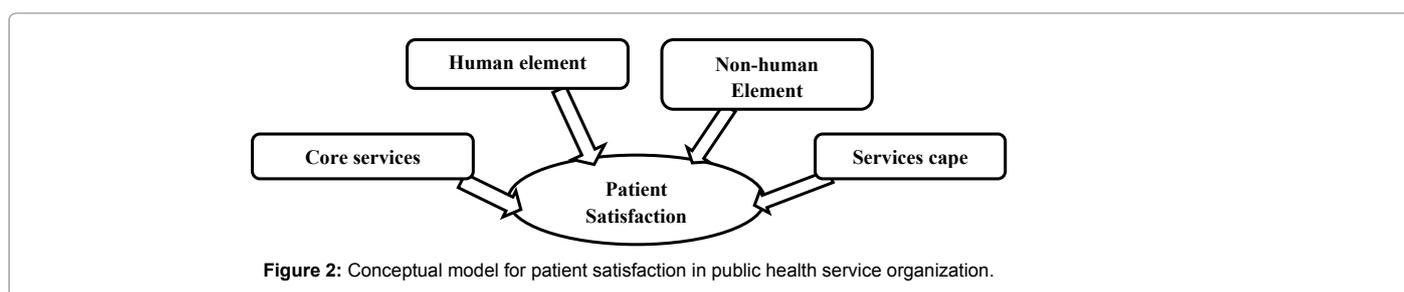
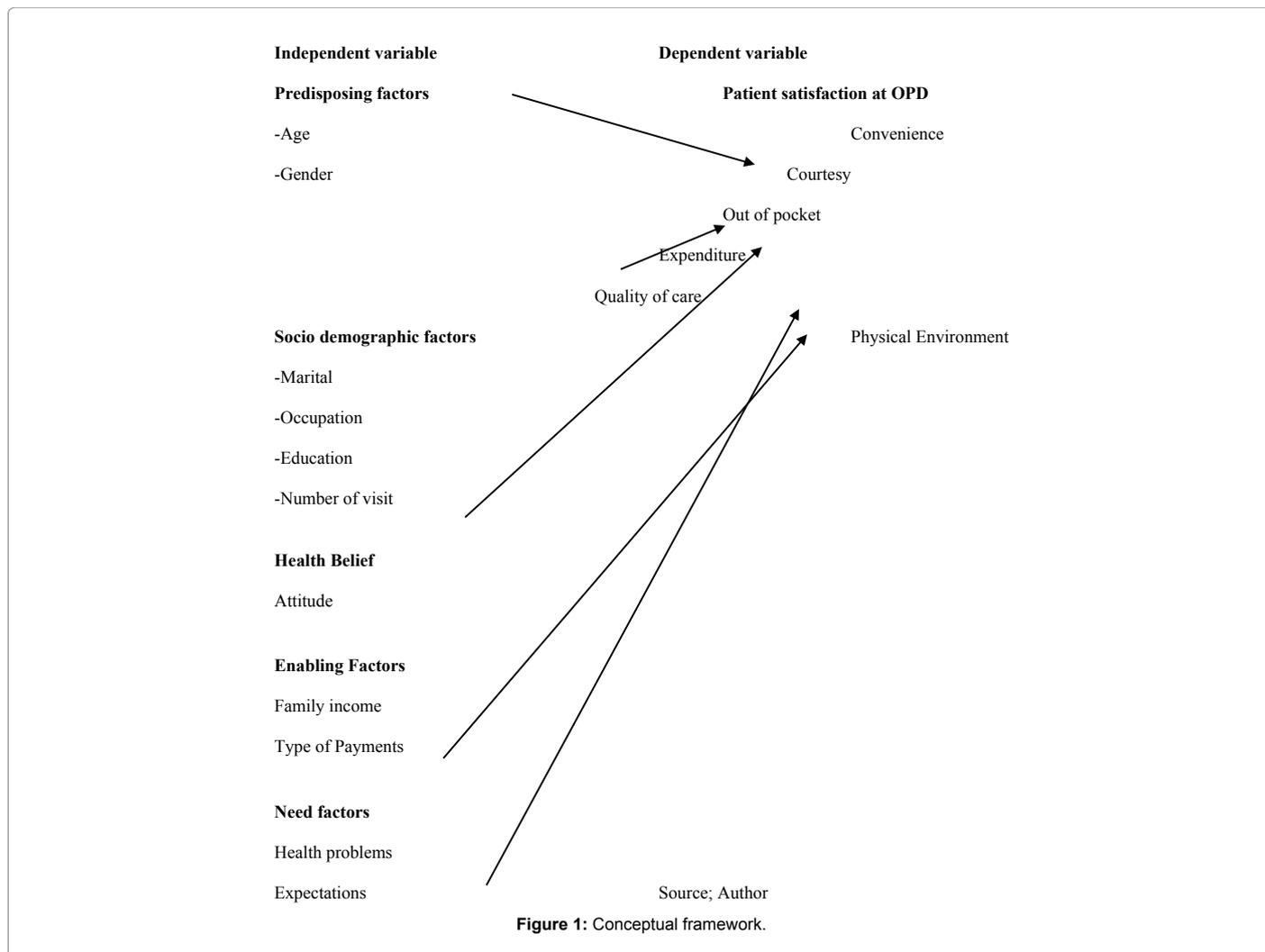
This was a cross sectional study. Teaching hospital Karapitiya was the study site and their OPD service is the main area of focusing. Teaching hospital Karapitiya is the main tertiary care hospital in Southern province and approximately 200-350 patients getting daily treatment. Patients aged from 16 to 65 and who will get the treatment between two weeks of study period the sample required for this study was at least 228. When 10% for missing was taken into consideration, the required sample for this study was 251 patients [5-8]. Stratified sampling was applied to draw the patients in order to get information about the OPD units mentioned in this study. In this type of sampling technique the researcher identifies the relevant strata and their actual representation in the population. Random sampling was then

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used to select a sufficient number of subjects from each unit (stratum). Population was stratified into 10 units of services. Then Random sampling was used to select the sufficient number from each stratum to determine the actual number of the samples per day. Proportionate size was applied to represent the patients from each unit (Table 1).

The research instrument planned for this study was an interviewer administrated questionnaire. Data collection was carried out by the researcher and with help of 3 trained interviewers. The data were collected when patients were waiting for consultation at OPD. After the collection was completed, it was entered by using Epi Data program. Steps are to be as the following:

- Each item will be coded and checked consistency of coding in all questionnaire forms;
- Entering data; and
- Check and edit consistency of data in all variables.

Frequency and percentage were calculated for predisposing factors (sex, age, marital status, education attainment, occupation and attitude) for enabling factors (family income and type of payment) and need factors (health problem and expectation) were analyzed. For the level of patient satisfaction in each class of age, education, occupation, marital status, income, health insurance, health problem; Mean, median

UNITS	Total no. of tokens/day/unit	Average no. of consultation/day/unit	Estimate no. of consultation (10 days)	Proportionate size/unit	Average no. of patient/day/unit
Medicine	180	68	680	36	4
General Surgery	75	57	570	30	3
Diabetic clinic	132	39	390	21	3
Ear-Nose-Throat	75	75	750	39	4
Dermatology	90	70	700	37	4
Ophthalmology	70	40	400	21	3
Orthopedics	102	71	710	37	4
Urology	50	49	490	26	3
Neurology	20	6	60	3	1
Plastic surgery	10	2	20	1	1
<b>TOTAL</b>	<b>804</b>	<b>477</b>	<b>4230</b>	<b>251</b>	

**Table 1:** Total number of patients per day in each unit (10 days planned for data collection).

standard deviation, maximum and minimum were calculated for quantitative data's. Quartile deviations, maximum and minimum were calculated for patient satisfaction, attitude and expectation since the data being rated in scale. Chi-square test were performed to determine the relationship between the satisfaction level and age, sex, marital status, education, occupation, income, expectation, attitude, health insurance and health problem of patients [9]. Significant level was set at 0.05.

## Results

The results show that majority of the patients were females (69.3%) from overall respondents while male patients were only (30.7%). Out of 251 patients the youngest patient was 16 years and oldest was 65 years old. The median score was 31.00 years and quartile deviation was 7.7. Most of the patients were married (67.7%) one-fourth was of single (25.90%), divorced/separated were only 2.8% and widows were 3.59%. Most patients (36.3%) had primary level of education. The second most (29.9%) had secondary level of education. 22.3% had higher education and only 11.6% had not attained school education. Related to occupation, most of the patients were unemployed (32.7%) and the second most were civil servants (29.1%) [10-14]. The others groups were agriculture and fishing. With regard to the average family income per month in Rupees, the lowest amount that earns was Rs. 1000 and highest amount that earns were Rs. 50,000. The median of family income was 8000 and a quartile deviation was 16,333. The patients with low income were 79.7%, moderate income was 17.1% and high incomes were 3.2% (Tables 2 and 3). Highest percentage (69.7%) of the patients agreed that medical staff treats in a friendly and courteous manner. Percentile or quartile was used as acute-off point to divide attitude into three groups. The total score of attitude was equal to 30. More than half 59.0% of the patients' had fair attitude towards hospital while the good and poor attitude were almost same, 20.7% and 20.3%, respectively (Table 4).

The patients were asked about their expectation towards health services provided. There were five questions in this section, including cost of services, quality of services, waiting time, physical environment and information exchange. To get the overall expectation, sum the total score for each respondent and then calculate the mean score for each respondent. Since the data were not normally distributed ( $p$ -value<0.05) so percentile was used as a cut-off point to categorized into high, medium and low expectation [15]. The entire patients answered all 5 questions except patients who got financial support by government and insurance scheme. The overall expectation towards the hospital, 20.7%

Socio-demographic factors	Frequency (N=251)	Percent (%)
<b>Gender</b>		
Female	174	69.3
Male	77	30.7
<b>Age</b>		
16-32	133	52.9
33-49	69	27.3
50-66	49	19.5
Median=31.0 QD=7.7	Max=65.0 Min=16.0	
<b>Marital status</b>		
Single	65	25.9
Married	170	67.7
Divorced/separated	7	2.8
Widowed	9	3.6

**Table 2:** Socio-demographic and economic characteristics of the patients.

Socio-demographic factors	Frequency (N=251)	Percent (%)
No education	29	11.6
Primary school	91	36.3
Secondary school	75	29.9
Higher secondary school	38	15.1
Higher education	11	4.4
Others	7	2.8
<b>Occupation</b>		
Civil servants	73	29.1
Private sector	27	10.8
Self-employed	27	10.8
Unemployed	82	32.7
Student	27	10.8
Others	15	6.0
<b>Average monthly income (Rs)</b>		
Rs 1000-15000	200	79.7
Rs 15001-35000	43	17.1
Rs 35001-50001	8	3.2
Total	251	100.0
Median=8000	Max=Min=1000	
50,000	QD=16,333	

**Table 3:** Overall attitudes of the patients towards health services.

of the Patients were highly gratitude their expectation towards services and 58.2% patient's had moderate expectation, while 21.1% had low expectation (Table 5).

The highest percentage (23.1%) was the feeling very dissatisfied with cleanliness and tidiness of the OPD atmosphere. The patients were most felt (15.1%) very satisfied with the good ventilation inside the hospital. The convenience part had 5 questions asking about simplicity and trouble free of service system, availability of instruments, cooling arrangement, availability of doctors and nurses/clinical assistance for consultation. Frequency and percentage were presented as on Table 6. Most patients were not (75.3%) satisfied with the convenience. The courtesy part had 4 questions about friendliness of doctors and nurses, their attentiveness, appropriate time spent for medical examination and privacy maintenance while examining patient. The patients had high and low satisfaction 45.8% and 54.2%, respectively [16]. The quality of care patients were asked about competency of doctors, quality of instrument, examination of patients and the way pharmacists dispensed drugs. The result showed that, 44.2% of patients were highly satisfied and 55.8% of patients were not happy with quality of care provided. Two questions were asked for out of pocket cost for medical expense, affordable and any protection financially against medical problems. Most patients were not satisfied (76.5%) and 23.51% were happy with the cost out of pocket they spent for medical services [17].

The last part of satisfaction was asked about physical environment. It included clean and tidy, enough sitting chairs available in waiting area, availability of drinking water and clean toilets, clear signs and direction and ventilation. The overall scores shows that 41.8% of patients were highly satisfied and (58.2%) had low satisfaction towards environment. The median, quartile deviation, maximum and minimum score was calculated after summing up total score for 20 questions; 80% and above considered as high satisfaction rate and 79 and below as low satisfaction rate (Table 6). Overall satisfaction with health services of THK hospital. The results showed that three quarter of the patient were having low (89.7%) satisfaction and only 10.4% were highly satisfied with services (Table 7).

Attitude level	Frequency	Percent (%)
Good attitude (>23.0)	52	20.7
Fair attitude (18-23.0)	148	59.0
Poor attitude (<17.99)	51	20.3
Total	251	100.0
<b>Median=21.00</b>	<b>QD=1.67</b>	<b>Max=30</b>
		<b>Min=6</b>

Table 4: Overall expectation of patients towards health services.

Variables	Level of satisfaction	
	High N (%)	Low N (%)
Convenience	62 (24.7)	198 (75.3)
Courtesy	115 (45.8)	136 (54.2)
Quality of care	111 (44.22)	140 (55.8)
Out of pocket cost	59 (23.5)	192 (76.5)
Physical environment	105 (41.8)	146 (58.2)

Table 5: Numbers and percentage of patients by overall satisfaction for each component.

Variables	Frequency (N=251)	Percent (%)
High satisfaction (>80)	26	10.4
Low satisfaction (≤ 80)	225	89.7
Total	251	100.0
<b>Median=71.00</b>	<b>QD=32.5</b>	<b>Max=91.0</b>
		<b>Min=26.0</b>

Table 6: Overall satisfactions towards health services at OPD.

Level of Attitude	Level of satisfaction		χ <sup>2</sup>	P-value	Statically level of significant
	High N (%)	Low N (%)			
<b>Gender</b>					
Female	20 (11.5)	154 (88.5)	0.79	0.38	P>0.05
Male	6 (7.8)	71 (92.2)			
<b>Age (Years)</b>					
16-32	16 (12.0)	117 (88.0)	1.121	0.571	P>0.05
33-49	5 (7.3)	64 (92.8)			
50-66	5 (10.2)	44 (89.8)			
<b>Marital status</b>					
Single	5 (7.7)	60 (92.3)	0.982	0.612	P>0.05
Married	19 (11.2)	151 (88.8)			
Divorced/ separated+widowed	2 (12.5)	14 (87.5)			
<b>Education</b>					
No education	1 (3.5)	28 (96.6)	3.653	0.301	P>0.05
Primary school	10 (11.0)	81 (89.0)			
Secondary school	11 (14.7)	64 (85.3)			
HSC/HE/others	4 (7.1)	52 (92.9)			
<b>Occupation</b>					
Civil Servants/ Private	9 (9.0)	91 (91.0)	0.519	0.771	P>0.05
Self-employed/ Others	4 (9.5)	38 (90.5)			
<b>Average monthly income (Rs)</b>					
1000–15,000	20 (10.0)	180 (90.0)	0.136	0.712	P>0.05
15,001–50,001	6 (11.8)	45 (88.2)			

Table 7: Association between socio demographic factors and satisfaction.

The age group was classified into three groups by using equal class interval. The percentage of high satisfaction (12%) was high in age group 16-32 years. All age groups showed high percentage of low level of satisfaction. In age group 16-32 years, 88% of the patients had low satisfaction, age group 33-49 years were 93% and age group 50-66 years were 90%. In perspective of education of patients, it was regrouped into four groups; no education, primary education, secondary education and higher secondary school/higher education/others. The patients with various level of education had almost same level of satisfaction. All the groups were having low satisfaction. The patients with secondary level of education had higher percentage of high level of satisfaction (14.7%) compared to other groups. Regarding the occupation of the patients, it was regrouped for analysis. They were civil Servants/private Sector, self-employed/ others and unemployed/s. Most of the patients had low satisfaction. High percentage of high satisfaction was found in unemployed/others group [18].

## Discussion

According to the overall satisfaction pointed out by this study, three quarter of the patients were low (89.64%) satisfied and only (10.36%) were highly satisfied with the services provided by the THK hospital. It may be due to higher cut-off point in this study. According to the study conducted by P. Roy in Sampran community hospital in Thailand (2002) shows, that 53% of patients were highly satisfied. From a study conducted in a tertiary care hospital in India, it has seen that 90-95% of patients are satisfied with the services offered in the hospital the patient satisfaction varies in different health care settings and circumstances [19].

This variation may be due to difference in quality of services

provided or difference in expectations of the patients or it can be in difference cultural setting among service providers and consumers as well regarding the level of satisfaction in terms of convenience, courtesy, quality of care, out of pocket cost and physical environment shows low levels of satisfaction. When compared with all the components of satisfaction, courtesy gained highest percentage of high satisfaction (45.8%). Quality of care gained the second highest. 44.2% highly satisfied and 55.8% lowly satisfied. Patient satisfaction is certainly a useful measure, and to the extent that it is based on patients' accurate assessments, it may provide a direct indicator of quality care. The most powerful predictor for client satisfaction with government health services was the provider's behaviour towards the patient, particularly respect and politeness. In physical environment 41.83% were highly satisfied and 58.2% was lowly satisfied [20,21].

The most negative result about satisfaction in this section was convenience and out of pocket cost. In cost out of pocket shows that only 23.51% patients were highly satisfied and 76.49% were having low satisfaction while in convenience were 24.7% highly satisfied with services whereas 75.3% proves low satisfaction. This shows that the cost that has to spend for medical treatment is costly for average income patients. These findings could reflect that patients were more concerned about out of pocket cost than other components. Overall satisfaction was reported by 60% of patients. According to researchers, the most familiar insight about patient satisfaction is that higher is better. If market share and revenue are important to services, only patient loyalty will do. And if patient satisfaction is a ladder to climb, experts agree that you'll find loyalty only on the top of the range. Exceptionally satisfied customers were six times more likely to buy again as one who was just merely satisfied. Therefore health care system is basically a service based industry and customer satisfaction is at utmost importance just as in other service oriented sectors.

## Conclusion

Patient attending each hospital are responsible for spreading the good image of hospital and therefore satisfaction of patients attending the hospital is equally important for hospital management. The customer image of the hospital still desired better quality of services appropriately throughout whole country. In this study, dependent variable of concern was patient satisfaction towards the hospital services which were considered according to component of care such as convenience, courtesy, quality of care, out of pocket cost and physical environment. Independent variables included; predisposing factors such as age, gender, marital status, educational level, occupation, number of visits and state of attitude towards services. Enabling factors included family income and type of payment for this visit. And need factors were health problem and expectation towards services. When taking into consideration the overall satisfaction score for groups of all patients' satisfaction level was 10.4% highly satisfied and 89.6% lowly satisfied with services of THK hospital [22].

The low proportion of high satisfaction level might have resulted from, among other reasons, the high criteria (80% of total score) of classification of satisfaction level. Regarding the components of satisfaction, it was found that overall patient had low satisfaction with services except courtesy and quality of care. In terms of expectation was not significantly associated with satisfaction level. The patient with high expectation had nearly high (15.4%) satisfaction and moderate expectation with high satisfaction was 11.6% of the patient and low expectation was only 1.9% with high satisfaction. According to these results most of the patients was having low expectation with low

satisfaction towards hospital. Among Socio demographic factors none were significantly associated with patient's satisfaction. The comments and suggestion resulting from respondents were related to convenience which was negative comments than positive. The complaints about inconvenience mostly stressed on long waiting time to consult doctor and access to pharmacy services, shortage of specialist doctors and health care providers.

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