ORIGINAL ARTICLE

Patient Satisfaction with the Quality of Healthcare Services at Selected Major Outpatient Clinics at Sultan Ahmad Shah Medical Centre Kuantan Pahang

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ABSTRACT

INTRODUCTION: Patient satisfaction is a key factor in determining any gaps or inadequacies in the healthcare provider's services. This study aimed to measure the level of patient satisfaction and its associated factors towards the healthcare service of outpatient clinics in Sultan Ahmad Shah Medical Centre (SASMEC), IIUM, Kuantan, Pahang. **MATERIALS AND METHODS:** A total of 1050 patients were recruited from internal medicine, paediatrics, surgery, obstetrics and gynaecology, orthopaedics, and psychiatry clinics between February 2021 and February 2022. A questionnaire was administered which consists of two parts: one that covers patients' sociodemographic data and the other that assesses the patients' level of satisfaction with the healthcare services using the Malay-validated Short-Form Patient Satisfaction Questionnaire (PSQ-18). **RESULTS:** The mean overall satisfaction level was 3.94 ± 0.46, with the highest mean scores in the interpersonal manners (4.2 ± 0.64) and communications (4.26 ± 0.56) domains. From the multivariate analysis, it was found that those patients in the lower income group (B40) were more satisfied with the quality of the healthcare services (B=0.172, 95% CI=0.08, 0.263) compared to the middle-income group. Being a student (B=- 0.202, 95% CI=- 0.296, -0.108) and having a follow-up treatment visit (B=-0.082, 95% CI=-0.156, - 0.008), were significantly associated with lower satisfaction levels as compared to their counterparts. **CONCLUSION:** Overall, patients who attended SASMEC were satisfied with the service provided. Continuous service improvement aimed at patients' household income, occupation and purpose of visit may help SASMEC enhance its service in the future.

Keywords
Patient satisfaction, PSQ-18, Healthcare service, SASMEC

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INTRODUCTION

Patient satisfaction can be defined as a comparison of an individual's actual experience with his or her own expectation towards the health care service given.[1] One of the essential aims of evaluating patient satisfaction is to identify any gaps and shortcomings in the facilities provided, thereby allowing healthcare providers to improve the quality of care.[2] Evidence showed that patients with high satisfaction towards the healthcare given has better compliance to the treatment regimen, better financial outcomes for the healthcare provider, lower claims of malpractice by the patients and are able to maintain continuity of care and good relationship with physicians.[3] However, most research have focused on inpatient services and assessing hospital facilities, whereas studies regarding outpatient services are still scarce. Therefore, more studies should be done in this setting to obtain the patients' evaluation and thus, further improve the services provided consistently. The satisfaction of receiving care from the healthcare workers in fulfilling patients' need can be acknowledged by using Patient Satisfaction Questionnaire Short Form (PSQ-18) with comparing intervention. These evaluations include general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with

doctor, and accessibility and convenience. PSQ-18 has been used as a tool in conducting patient satisfaction in some healthcare facilities. For instance, one study was conducted at teaching hospital in Malaysia mainly on patient satisfaction at the University Kebangsaan Malaysia Medical Centre (UKMMC), in which less than half of the respondents were satisfied with the overall service provided (41.0%), while the others (59.0%) were not satisfied.[2] Besides that, according to the study at UKMMC and Unani Medicine Hospital revealed that interpersonal manner was the highest percentage satisfaction as compared to others subscale.[2,4]

Meanwhile, another study conducted at Tengku Ampuan Rahimah Hospital, Malaysia (HTAR) contradicted with the previous findings.[5] As such, each facility might differ in term of patient satisfaction due to several subscale presence. And since its opening in 2016, a patient satisfaction study at Sultan Ahmad Shah Medical Centre (SASMEC) has never been conducted, rendering this study a greater significance for future references as well as to improve service quality. SASMEC is also the first teaching hospital certified for a sharia-based quality management system. Thus, this study aims to measure the level of patient satisfaction and its associated factors towards the service of outpatient clinics in SASMEC, Kuantan, Pahang.

MATERIALS AND METHODS

The cross-sectional study was done in selected outpatient clinics in SASMEC, Kuantan, Pahang. The clinics included were internal medicine, paediatrics, surgery, O&G, orthopaedics, and psychiatry clinics, for a period of one year, starting in February 2021 until February 2022. The patients were recruited by convenient sampling as they attended the outpatient clinics. The inclusion criteria were patients who have attended selective major outpatient clinics in SASMEC, or the guardian or next of kin for patients below 18 years old. However, patients, guardians, or next of kin who were illiterate, or who had serious physical or mental pathologies, such as terminal disease or psychosis, were excluded.

Study Instrument

The patients were given a two-part self-administered questionnaire. The first part includes data on the patients' sociodemographic, socioeconomic, and health variables. The second part of the questionnaire used the Malay validated Short-Form Patient Satisfaction Questionnaire (PSQ-18).[6,7] PSQ-18 is comprised of eighteen items with seven dimensions, with scores according to a 5-scale Likert scoring system, totalling to a score of 90. A higher mean score indicated higher levels of satisfaction. As reported by Marshal and Hyas, some elements of PSQ-18 are formulated to reflect satisfaction with medical care, while others are formulated to reflect dissatisfaction.[6]

Therefore, the scores of "1,2,3,5,6,8,11,15,18" items have been reversed to obtain the total satisfaction score. However, the seven subscales are yielded by averaging the score of the related items as follows: the General satisfaction (third and seventeenth items), technical quality (second, fourth, sixth and fourteenth items), interpersonal manner (tenth and eleventh items), communication (first and thirteenth items), financial aspects (fifth and seventh items), time spent with the doctor (twelfth and fifteenth items), and accessibility and convenience (eighth, ninth, sixteenth and eighteenth items).

Statistical Analysis

Data recorded was analysed using IBM SPSS Statistics version 25.0. The categorical variables were recorded as frequencies and percentages, while numerical variables were recorded as means and standard deviation (SD) unless otherwise stated. The independent variables that were shown to be significantly ($p<0.05$) related to the outcome variables using simple linear regression were deemed potential contributory factors and were included in the multiple regression models (Enter method). After no evidence of multicollinearity was found, a linear relationship between the contributing factors and patient satisfaction levels was established. We examined this problem by considering the tolerance for each independent variable to assume a linear relationship. Tolerance values greater than 0.4 were considered acceptable. The assumption of equal variance was also

tested for linearity using a scatter plot between the residual (x) and predicted values (y). Statistical significance was defined as a p value less than 0.05.

Ethical Approval and Funding

The Kulliyyah of Medicine Research Committee approved this study and registered it to IIUM Research Ethics Committee (IREC) with ID: IREC 2021- 074. This study funded by SASMEC Research Grant with ID: SRG 21-017- 0017.

RESULTS

Sociographic Characteristic

Most of the respondents were women (n=726, 69.1%), with a mean age of 38 (13). The majority of them were Malays (n=971, 92.5%) and married (n=820, 78.1%). More than half of the respondents were employed (n=628, 59.8%), had a tertiary education level (n=696, 66.3%), and were in the middle income (M40) group (n=552, 52.6%). The majority of them (n=789, 75.1%) reside in urban areas and visited clinics for follow-up treatment (n=877, 83.5%) (Table I).

Table I: Sociodemographic Characteristic

Characteristic	n	%
Gender		
Male	324	30.9
Female	726	69.1
Age (Years)[a]	38	13
Races		
Malay	971	92.5
Chinese	53	5.0
Indian	18	1.7
Others	8	0.8
Marital Status		
Single	192	18.3
Married	820	78.1
Ever married	38	3.6
Monthly Household Income (MYR)[b]		
B40	135	12.9
M40	552	52.6
T20	363	34.6
Current Employment Status		
Employed	628	59.8
Unemployed	219	20.9
Student	113	10.8
Retired	90	8.6
Highest Education Level		
No formal education/ lower education	27	2.6
High school	327	31.1
Tertiary education	696	66.3
Residence		
Urban	789	75.1
Rural	261	24.9
Purpose of Visit to Clinic		
Follow up treatment	877	83.5
Newly referred case	128	12.2
Others	45	4.3

[a]mean (SD); [b] B40 (<RM 4849), M40 (RM 4850–10595), and T20 (>RM 10960).

Patients' Satisfaction for Each Satisfaction Item (PSQ-18)

Table II shows the scales of satisfaction based on domains derived from the PSQ-18. The overall satisfaction of the patients with the services provided in the outpatient clinics of SASMEC, derived from the average score of the cumulative items, was 3.94 $\pm$ 0.46. The "interpersonal manner" domain had the highest mean satisfaction score (4.26 $\pm$ 0.64), while the "accessibility and convenience" domain had the lowest (3.74 $\pm$ 0.67).

Table II: Scales of satisfaction from PSQ-18 derived from satisfaction items

PSQ-18 Domain	No. of Items	Minimum	Maximum	Mean $\pm$ SD
General Satisfaction (Items 3 + 17)	2	1.00	5.00	4.15 $\pm$ 0.62
Technical Quality (Items 2 + 4 + 6 + 14)	4	1.00	5.00	3.95 $\pm$ 0.54
Interpersonal Manner (Items 1 + 13)	2	1.00	5.00	4.26 $\pm$ 0.64
Communication (Items 10 + 11)	2	1.00	5.00	4.26 $\pm$ 0.56
Financial Aspects (Items 5 + 7)	2	1.00	5.00	3.81 $\pm$ 0.70
Time Spent with Doctor (Items 12 + 15)	2	1.00	5.00	3.74 $\pm$ 0.67
Accessibility and Convenience (Items 8 + 9 + 16 + 18)	4	1.25	5.00	3.68 $\pm$ 0.55
Overall satisfaction (Cumulative of all items)	18	1.67	5.00	3.94 $\pm$ 0.46

Association Between Sociodemographic and Overall Patient Satisfaction Score

Table III summarises the relationship between sociodemographic and overall patient satisfaction. Chinese respondents were more likely to be satisfied with the healthcare services (B=0.145, 95% CI=0.017, 0.273) compared to Malay respondents. Other than that, students were reported to have a lower satisfaction level (B=-0.165, 95% CI=-0.257, -0.074) compared to the employed group.

The respondents who had obtained a high school education level were reported to be significantly associated with a higher satisfaction level (B=0.087, 95% CI= -0.027, 0.147) compared to their counterparts. In addition, those respondents in the low (B40) (B=0.125, 95% CI=0.039, 0.211) and high (T20) (B=0.084, 95% CI=0.023, 0.144) income groups were more likely to have a higher satisfaction level compared to those respondents from the middle-income group. The reason for the visit had also shown a significant association, with patients seeking

follow-up treatment having a lower level of satisfaction (B= -0.079, 95% CI= -0.154, -0.004) compared to referral group. However, only monthly household income, current employment status, and purpose of visit remained independently significant as associated with the satisfaction level of healthcare services in the multivariate analysis (Table III). It was found that the factors influencing the satisfaction level were those respondents in the low-income group (B40) (B=0.172, 95% CI=0.08, 0.263) who were positively associated with the healthcare service satisfaction level. Whereas, students (B=-0.202, 95% CI= -0.296, -0.108), and those respondents who came for follow -up treatments (B=- 0.082, 95% CI=-0.156, -0.008) were negatively associated with the satisfaction level.

DISCUSSIONS

The findings of our study indicate that the mean level of overall satisfaction was 3.94 ± 0.46. Notably, the domains of interpersonal manners and communications exhibited the highest mean scores. Nevertheless, the sector of accessibility and convenience demonstrated the lowest score. In agreement with previous research carried out at a different teaching medical centre based in Kuala Lumpur, it was observed that the communication aspect presented the higher level of satisfaction.[8] The likely explanation for the congruent outcome observed in our study compared to theirs could be attributed to the teaching hospital's reputation for training postgraduate students in the skills of effective patient communication. In contrast to a study conducted at a government hospital in Klang, the study identified interpersonal manner and communication as two categories that received the lowest results.[5] One plausible explanation suggests that the healthcare centre in particular had a higher patient load, and this could potentially undermine the level of patient satisfaction with the healthcare service provided. In our study, there were several factors independently associated with the

Table III: Association between sociodemographic and overall patient satisfaction score

Variables	Simple linear regression					Multiple linear regression				
	B	SE	P value	95% CI		B	SE	P value	95% CI	
Gender (ref: Male)	-0.040	0.031	0.188	-0.100	0.020	-	-	-	-	-
Age (Years)	-0.001	0.001	0.208	-0.003	0.001	-	-	-	-	-
Races (ref: Malay)										
Chinese	0.145	0.065	0.027*	0.017	0.273	0.106	0.064	0.101	-0.021	0.232
Indian	-0.122	0.109	0.266	-0.336	0.093	-	-	-	-	-
Other	-0.365	0.464	0.431	-1.276	0.545	-	-	-	-	-
Marital status (ref: Single)	0.064	0.037	0.084	-0.008	0.136	-	-	-	-	-
Married	0.117	0.082	0.153	-0.044	0.277	-	-	-	-	-
Ever married										
Monthly household income (ref: M40)	0.084	0.031	0.007*	0.023	0.144	0.060	0.032	0.057	-0.002	0.123
T20	0.125	0.044	0.005*	0.039	0.211	0.172	0.047	<0.001*	0.080	0.263
B40										
Current employment status (ref: Employed)										
Unemployed	0.013	0.036	0.711	-0.057	0.084	-	-	-	-	-
Students	-0.165	0.047	<0.001*	-0.257	-0.074	-0.202	0.048	<0.001*	-0.296	-0.108
Retired	-0.064	0.052	0.212	-0.166	0.037	-	-	-	-	-
Highest education level (ref: Tertiary education)										
High school	0.087	0.031	0.005*	0.027	0.147	0.046	0.032	0.148	-0.016	0.108
No and lower education	0.158	0.090	0.080	-0.019	0.334	-	-	-	-	-
Residence (ref: Urban area)	0.040	0.033	0.224	-0.025	0.104	-	-	-	-	-
Purpose of visit to clinic (ref: Newly referred case)										
Follow up treatment	-0.079	0.038	0.038*	-0.154	-0.004	-0.082	0.038	0.030*	-0.156	-0.008
Others	-0.213	0.460	0.644	-1.115	0.690	-	-	-	-	-

Note: Unstandardized coefficient (B), Standard error (SE), Confidence interval (CI), *significant at p value <0.05.

satisfaction level of healthcare services. It showed that the monthly household income may influence a patient's satisfaction level with healthcare services in selected major outpatient clinics in SASMEC. It showed that patients in the B40 income group were positively associated with a satisfactory level of healthcare services. Consistent with previous studies, it was also reported that patients with lower socioeconomic status were more satisfied with the healthcare services in the tertiary centre.[9,10,11] It was also shown that students complained more about their dissatisfaction with the healthcare services provided by the SASMEC compared to employed patients.

A similar finding was also reported in other higher education institutions in Malaysia, which indicated that the majority of their students were not satisfied with the healthcare services provided by their institution. These findings indicated that the student's high expectations of the services provided by the healthcare centre might be due to their higher education level. Understanding the student's behavioural intention and trust might warrant the improvement of healthcare services in healthcare centres.[13] Therefore, it is evident that students play a substantial part in assessing the quality of service provided within the healthcare facility. The satisfaction levels of the patients, as demonstrated, were significantly correlated to the purpose of their visit.

Our findings contradicted a study done in Uganda, which reported higher satisfaction levels in patients returning for their follow-up visits.[14] This result could be explained by the fact that the majority of patients who are not satisfied are more willing to change to a healthcare centre where they will be treated with the best service. This study showed that patients who need to spend more time in the hospital due to consultations, investigations, and procedures are less satisfied with the services provided when compared to those who are not required to. Other studies showed that satisfied patients develop trust in the hospital, and this becomes an influencing factor in revisit intention.[15]

LIMITATIONS OF STUDY

This is a cross-sectional study that only measured exposure and outcome at one specific point in time. Cause-and-effect relationships between variables could not be determined. Apart from that, the data were obtained by self-reporting, which lea to bias, and the findings might not represent the overall satisfaction of the patients attending the SASMEC due to the non-probability sampling approach used in this study.

CONCLUSIONS

In conclusion, most of the respondents who attended SASMEC were satisfied with the quality of healthcare service provided. Interpersonal manner and communication regarding the quality of healthcare treatments were the domains that contributed the most to patients' satisfaction. Those with lower incomes were among the factors influencing higher overall satisfaction. Nonetheless, students and those who returned to outpatient clinics for follow-up treatment were dissatisfied with the health-care services provided. It is hoped that the outcomes of this study will aid SASMEC's higher authority to improve the quality of their services in the future.

CONFLICT OF INTEREST

The authors disclose that they have no conflicting interests.

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