

PATIENT SATISFACTION TOWARDS HEALTHCARE SERVICES AND ITS ASSOCIATED FACTORS AMONG PATIENTS ATTENDING THE BUSIEST HEALTH CLINIC IN PAHANG

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OUTLINE



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INTRODUCTION



- Patient satisfaction works as an important tool to assess level of health services (1).
- Improve patient adherence to medical treatment (2).
- A predictor of patients' willingness to initiate malpractice litigation (3).
- Bring better financial outcomes to the healthcare worker (4).

STUDY JUSTIFICATION



The number of patient visits at Klinik Kesihatan Bandar Kuantan (KKBK) was seven times that of the average number of patient visits at other government health clinics, which was 111.5 attendees per day (5),(6).

- Higher patient loads may result in dissatisfaction with healthcare services at Klinik Kesihatan Bandar Kuantan (KKBK). This may be caused by lengthy waiting time and lack of clinician dedication owing to burnout and poor service quality (7).
- Patient dissatisfaction will disrupt healthcare delivery systems and reduce treatment adherence (8).

STUDY JUSTIFICATION,

Cont



- This study aims to ascertain the level of patient satisfaction with healthcare services provided at Kuantan City's busiest primary care clinic, with the results being utilised to identify areas of healthcare that require improvement.

GENERAL OBJECTIVE

- To determine the patient satisfaction towards healthcare services and its associated factors among patients attending Klinik Kesihatan Bandar Kuantan, Pahang.





SPECIFIC OBJECTIVES

1. To determine the level of patient satisfaction towards healthcare services in Klinik Kesihatan Bandar Kuantan (KKBK), Pahang.
2. To determine the association between patient's background characteristic and their satisfaction level towards healthcare services in Klinik Kesihatan Bandar Kuantan (KKBK).



LITERATURE REVIEW



Epidemiology-Malaysia

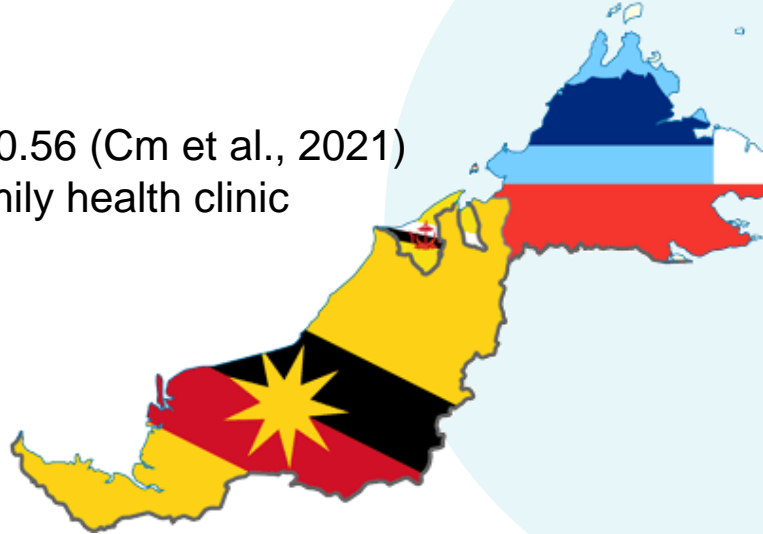
67.18 ± 6.67 (Leow & Liew, 2022)

UMMC primary care clinics



70.75 ± 10.56 (Cm et al., 2021)

IIUM family health clinic



59.2 ± 6.5 (K. Ganasegeran et al., 2015)

MOPD HTAR

Epidemiology- worldwide

68.52 ± 8.54 (Sinuraya et al., 2016)

7 primary healthcare clinics in Bandung City, Indonesia



59.9 ± 14.6 (Kavalniene et al., 2018).

Lithuania primary care

Conceptual framework

Distal determinant

Sociodemographic

Age

Gender

Religion

Residential

Education

Socioeconomic

Working status

Income class

Insurance

Proximal determinant

Self perception

Waiting time

Consultation time

Service experience

Physician services

Physical facilities

Supporting staff services

Registration services

Information system

Patient factors

Treatment duration

Treatment history

Number of visit

Patient satisfaction



Legend

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Variables includes in the study

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Variables not include in the study

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Dependent Variable



Relationship to be studied

METHODOLOGY



Study design:

Cross sectional

Study

location:

Klinik

Kesehatan

Bandar

Kuantan

(KKBK)

Sampling

method:

Simple random
sampling

Study

population:

Patient

attending

KKBK

Statistical

analysis:

IBM SPSS 26;

independent T-

test, Multiple

linear

regression

Study period:

March 2022 to

August 2022

Ethical Approval:

NMRR ID-22-00013-

USK (IIR), MREC



Sample size calculation

The single mean formula was used to compute the sample size for a single mean with the requisite precision.

The average patient satisfaction score in primary healthcare was 68.52 (8.54) (Sinuraya et al., 2016)

The 95% confidence interval with a precision of 1.4 contained 143 respondents.

$$N = \frac{\left(z \frac{\alpha}{2}\right)^2 \sigma^2}{d^2}$$

$$N = (1.96)^2 * (8.54)^2 / 1.4^2$$

$$N = 143$$

Non-response rate = 30% (Stark et al., 2021)

Non response rate calculated by

$$N_{\text{adjusted}} = 143 / (1 - 0.3) = 205;$$

Thus, the total estimated sample is 205 respondents.



Sampling method

- A simple random sampling was used in this study to randomise the participation and increase the reliability of the study finding.
- The study population was divided into two strata: the outpatient department and the non-communicable disease department, given only two departments are available in Klinik Kesihatan Bandar Kuantan (KKBK).
- Each stratum is mutually exclusive, but together they contain the entire population. Simple random sampling was used to sample from within each stratum

Department	Estimated number of patients per day	Number of patients in the sample	The selected number of patients
OPD	500	$205/750 \times 500$	137
NCD	250	$205/750 \times 250$	68
		Total sample size	205



Study instrument

Section A:
Sociodemographic
profile

Section B:
PSQ 18



Short-Form Patient Satisfaction Questionnaire (PSQ-18)

(PSQ-18) originally developed by Marshall and Hays and validated among Malaysian population (9)

It is available in English and Bahasa Malaysia and comprises of 18 questions .

The 7 dimensions include general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor and accessibility and convenience.

Cronbach alpha was 0.63 to 0.79 (Malay version). (9)

Cronbach alpha was 0.64 to 0.77 (English Version)(10).

PSQ-18 scoring system, the sum score of all subscales range from 18 to 90 score points with maximum mean of 5 (11),(12)

Seven domains of patient satisfaction with their calculations

The scoring system of PSQ-18				
PSQ-18 Domain	No. of Items	Maximum Possible Score	Maximum Possible Mean (Maximum Possible Score/No. of items)	Level of Satisfaction in Percentage (Possible score/Maximum Possible score) X 100
General Satisfaction (Items 3+17) (A)	2	10	10/2 items =5	(A/10) X 100
Technical Quality (Items 2+4+6+14) (B)	4	20	20/4 items =5	(B/20) X100
Communication (Items 10+11) (C)	2	10	10/2 items =5	(C/10) X100
Interpersonal Manner (Items 1+13) (D)	2	10	10/2 items =5	(D/10) X 100
Financial Aspects (Items 5+7) (E)	2	10	10/2 items =5	(E/10) X 100
Time Spent with Doctor (Items 12+15) (F)	2	10	10/2 items =5	(F/10) X 100
Accessibility and Convenience (Items 8+9+16+18) (G)	4	20	20/4 items =5	(G/20) X100
Overall satisfaction (Cumulative of all items) (H)	18	90	90/18 items =5	(H/90) X100

RESULTS



Sociodemographic profiles

VARIABLES	FREQUENCY (n = 201)	PERCENTAGE (%)
Age		47.1 (16.9)*
Gender		
Male	121	60.2
Female	80	39.8
Ethnic		
Malay	138	68.7
Chinese	40	19.9
Indian	21	10.4
Others	2	1.0
Religion		
Muslim	138	68.7
Buddha	29	14.4
Hindu	25	12.4
Christian	9	4.5

*mean, SD

Sociodemographic profiles, cont

VARIABLES	FREQUENCY (n = 201)	PERCENTAGE (%)
Residential		
Urban	175	87.1
Rural	26	12.9
Marital status		
Married	145	72.1
Single	47	23.4
Separated	9	4.5
Education		
Primary or lower	43	21.4
Secondary	109	54.2
Tertiary	49	24.4
Income class		
B40 (<RM4850/month)	177	88.0
M40 (RM4850- RM10959/month)	19	9.5
T20 (\geq RM10960/month)	5	2.5

Sociodemographic profiles, cont

VARIABLES	FREQUENCY (n = 201)	PERCENTAGE (%)
Working status		
Working	120	59.7
Not working	62	30.8
Student	7	3.5
Pensioner	12	6.0
Health Insurance		
Guarantee letter	29	14.4
Non-GL	172	85.6
Self-Perception		
Are you happy with the waiting time ?		
Yes	160	79.6
No	41	20.4
Are you happy with the consultation time?		
Yes	188	93.5
No	13	6.5
Department		
Outpatient (OPD)	133	66.2
Non-communicable disease (NCD)	68	33.8

Level of patient satisfaction

PSQ 18 Domain	Mean Score ± SD	Mean ± SD	Satisfaction Percentage
General satisfaction	7.66 ± 1.25	3.83 ± 0.31	76.61
Technical Quality	15.17 ± 1.72	3.79 ± 0.43	75.87
Communication	7.88 ± 1.13	3.94 ± 0.56	78.76
Interpersonal Manner	7.99 ± 1.17	4.00 ± 0.59	79.90
Financial Aspects	8.05 ± 0.90	4.03 ± 0.45	80.55
Time Spent With Doctor	7.62 ± 1.16	3.81 ± 0.58	76.22
Accessibility & Convenience	14.55 ± 1.70	3.63 ± 0.42	72.74
Overall Satisfaction	68.93 ± 5.57	3.83 ± 0.31	76.59

Association between background characteristics with mean overall patient satisfaction

		Overall satisfaction (Mean)	Test	p-value
Variables		Mean±SD		
Age		47.1 ±16.9	0.036****	0.607
Gender	Male Female	3.85 (62.5) 3.80±0.31	1.035*	0.302
Ethnic	Malay Chinese Indian Others	3.83±0.35 3.81±0.23 3.86±0.25 4.11±0.31	0.659**	0.578
Religion	Muslim Hindu Christian Buddha	3.82±0.35 3.89±0.15 3.86±0.14 3.80±0.26	0.464**	0.708

p<0.05 considered as significant, **F (One-Way Anova), *t (Independent T test) , Pearson correlation*

Association between background characteristics with mean overall patient satisfaction, cont

		Overall satisfaction (Mean)	Test	p-value
Variables		Mean SD		
Residential	Rural Urban	3.70±0.42 3.85±0.28	1.791*	0.084
Marital Status	Single Married Seperated	3.83±0.30 3.83±0.31 3.79±0.41	0.802**	0.922
Education Level	Primary or lower Secondary Tertiary	3.93±0.20 3.78±0.36 3.86±0.25	3.907**	0.022***
Working Status	Working Not working Student Pensioner	3.84±0.31 3.80±0.30 3.63±0.40 3.91±0.27	1.491**	0.218

p<0.05 considered as significant, **F (One-Way Anova), *t (Independent T test) , Pearson correlation*

Association between background characteristics with mean overall patient satisfaction, cont

		Overall satisfaction (Mean)	Test	p-value
Variables		Mean±SD		
Income Class (RM) ≥10,960 ≥4,850-10,959 < 4,850	T20 M40 B40	3.64±0.33 3.95±0.31 3.82±0.33	2.592**	0.077
Health insurance	Guarantee letter (GL Non-GL	3.82±0.30 3.83±0.31	0.138*	0.891
Are you happy with the waiting time?	Yes No	3.86±0.31 3.70±0.29	2.975*	0.003***
Are you happy with the consultation time?	Yes No	3.85±0.28 3.45±0.44	3.253*	0.006 ***

p<0.05 considered as significant, **F (One-Way Anova), *t (Independent T test) , Pearson correlation²⁵

Association between background characteristics with mean overall patient satisfaction, cont

		Overall satisfaction (Mean)	Test	p-value
Variables		Mean±SD		
Department	Outpatient department (OPD)	3.84±0.30	0.398*	0.691
	Non-communicable disease department (NCD)	3.82±0.33		

p<0.05 considered as significant, **F (One-Way Anova), *t (Independent T test) , Pearson correlation*



Multiple linear regression: Factors associated with mean overall patient satisfaction.

Variables	Overall satisfaction (Mean)			
	Multiple linear regression ^a			
	Adj.B ^b	95% CI	t-stat	p-value
Education Level [Secondary (reference)]				
Primary or lower	0.144	0.042,0.246	2.787	0.006*
Tertiary	0.051	- 0.47, 0.148	1.026	0.306
Are you happy with the consultation time? [Yes (reference)/No]	- 0.154	- 0.253, - 0.055	- 3.068	0.002*
Are you happy with the waiting time? [Yes (reference)/No]	- 0.371	- 0.534, - 0.209	- 4.504	0.001*

^a $r^2 = 0.172$. The model fits reasonably well. Model assumptions are met. There is no multicollinearity problem,

^b Adjusted regression coefficient, * $p < 0.05$ considered as significant

Discussion (level of patient satisfaction)

- We shared almost identical mean scores (68.93 ± 5.57) with the study conducted at UMMC primary care, 67.18 ± 6.67 (15).
- KKBK and UMMC primary care clinics have high patient loads, located in busy cities, and have longer appointment intervals.
- IIUM family health clinic had a lower patient load and thus showed better overall patient satisfaction mean score of 70.75 ± 10.56 .
- The treating physician experience also contributes to patients' satisfaction with healthcare services received (15).

DISCUSSIONS, (level of patient satisfaction) cont

- Local studies reported a proportion of patient satisfaction
 - Satisfied patients ranging from 78.8% to 93.1% (17),(18),(19)
 - Lower satisfied patient rates ranging from 19.4% to 30.7% (20),(21).
- The difference might be due to different instruments in measuring patient satisfaction.
- A local study with a very high level of patient satisfaction (93.1%) hypothesis it was related to the 'generosity factor' of patients who provide high scores on questionnaires.

DISCUSSIONS, (level of patient satisfaction) cont

Dissatisfaction in the primary care clinic was mainly due to (22),(13).

- Long waiting,
- Healthcare facilities,
- Doctors' behaviour, and
- Nonavailability of medicines

DISCUSSIONS, (level of patient satisfaction)

cont

- Looking at different settings at the busiest medical patient outpatient department in a tertiary centre, Hospital Tengku Ampuan Rahimah (HTAR), Klang,
- It was found that the total mean satisfaction score was much lower, 59.2 ± 6.5 compared to our result of 68.93 ± 5.57 .
- Even in different settings, the finding showed that busy clinics affect patient satisfaction (10).

DISCUSSIONS, (level of patient satisfaction)

cont

- The finding of our study is in concordance with other studies, which showed that primary care showed better patient satisfaction than tertiary settings (23).
- This may be contributed by patient-centredness practice at the primary care level compared to a disease-focused tertiary centre setting (16).

DISCUSSIONS, (level of patient satisfaction) cont

- Even though the majority (88.1%) of our respondents were from the B40 group and did not have insurance coverage (85.6%),
- The financial aspect had the highest mean score of overall patient satisfaction level at KKBK, 8.05 ± 0.90 .
- Government highly subsidised healthcare systems (24) .

DISCUSSIONS, (level of patient satisfaction) cont

- Lower satisfaction on the financial aspect was found in both local studies at UMMC primary care with a mean score of 7.53 ± 1.34 , and IIUM family health clinic mean score of 7.86 ± 1.69 .
- Both clinics are paying clinics and partially subsidized by the Malaysian government and thus, the patient was expecting more on the treatment and outcome (15),(16).

DISCUSSIONS, (level of patient satisfaction) cont

- In terms of accessibility and convenience, we had the lowest percentage, 72.74%, among all other domains in PSQ-18.
- Most patients felt uneasy as they needed to set an appointment prior to seeing the doctor due to the COVID-19 pandemic, not as before in which they can just walk in to get the health services.
- High patient loads make the patient wait longer for an appointment.
- Despite the patient having difficulty setting an appointment at KKBK, most patients still felt KKBK is easy to reach.

DISCUSSIONS, significant association

- A significant association was found between overall satisfaction mean with education level ($p=0.022$).
- It was found that patients with primary education were more satisfied than those with secondary education level on the healthcare services they received.

DISCUSSIONS, significant association

- Less educated patients rated these characteristics of patient-centred care as less important than more educated patients (27)
- To increase patient satisfaction with the healthcare services they got, clinicians should place a greater emphasis on patient-centred care for patients regardless of their education level

DISCUSSIONS, significant association

- The patients with a higher level of education were less satisfied since they have higher education, higher income, and social status (25).
- Less educated patients were less likely to report their expectations during medical visits (26).

DISCUSSIONS, significant association cont

- Those who were not happy with the consultation duration scored lower mean of overall patient satisfaction ($p=0.006$).
- Anderson et al. found that time spent with the physician was the strongest predictor of patient satisfaction. The decrement in satisfaction is substantially reduced with the increase in time spent with the physician (28)
- However, the actual length of consultation was not responsible for improving patient satisfaction , but rather psychosocial needs and expectation exploration was much more critical (29).

DISCUSSIONS, significant association cont

- Due to restricted consultation time, clinicians in a busy clinic may struggle to identify their patients' agenda;
- Therefore, it is vital to ensure that quality consultation time is spent by managing patient expectations and psychological needs.

DISCUSSIONS, significant association cont

Web-based, electronic medical records with an integrated patient agenda tool that defines the patient's agenda prior to clinic visits may improve the patient's consultation experience at KKBK.

This allow doctors to assimilate more patient needs prior to a physical consultation, facilitate communication, and assist in identifying the patient's problems more effectively (30).

DISCUSSIONS, significant association, cont

- Our study also found a significant association between overall satisfaction mean and waiting time ($p=0.003$).
- Those not happy with waiting time scored lower on the mean overall satisfaction than those who were happy with the waiting time on healthcare services they received.
- Lee et al. found that waiting time has consistently been a significant predictor of patient dissatisfaction (31).

DISCUSSIONS, significant association, cont

- Positive communication could alleviate the harmful effects of long waiting times. Long waiting times remain one of the strongest predictors of patient dissatisfaction(31)
- Xie Z et al. found that patients who experienced longer waiting times considered their healthcare service less accessible and less convenient (32).

DISCUSSIONS, significant association cont

- Waiting time can be improved by proper triaging and improving on patient flow process by implementing efficient data management and integrating technology in patient care.
- Study shows patient satisfaction was higher with Electronic Medical Record (EMR) than paper-based clinic (33).
- Virtual telehealth can be used to manage chronic stable non communicable disease patient.
- Stable patients can be seen virtually, thus avoiding congestion and reducing waiting time in KKBK.

Conclusion and Recommendation

- In conclusion, most respondents who attended KKBK were satisfied with the quality of healthcare services provided.
- Patient education, waiting time, and consultation duration contribute to overall patient satisfaction.
- The finding suggests improvement is needed in factors involved especially in waiting time and consultation duration.
- It is hoped that the outcome of this study will aid the KKBK authorities and other government health clinics in improving their quality of services in the future.

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THANK YOU!



CERTIFICATE OF APPRECIATION

This certificate is awarded to

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for your participation and contribution as the presenter for
your research project entitled

"Patients Satisfaction Towards Healthcare Services And Its Associated Factors Among Patients Attending The Busiest Government Clinic In Pahang."

9th APPCRC: ORAL PRESENTATION


Sheraton Petaling Jaya Hotel, Selangor
3rd – 4th June 2023

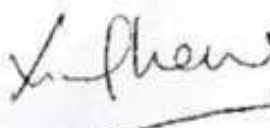


ACADEMY OF FAMILY
PHYSICIAN OF MALAYSIA



MINISTRY OF HEALTH
MALAYSIA


A/ PROF DR NOOR AZIMAH MUHAMMAD
Organising Committee Chair


PROF. DR NIK SHERINA HANAFI
Scientific Committee Chair



MPCRG

Malaysian Primary Care Research Group

**ANNUAL SCIENTIFIC MEETING 2023
9TH ASIA PACIFIC PRIMARY CARE
RESEARCH CONFERENCE (APPCRC)**

**PROGRAMME
EBOOK**

2ND - 4TH JUNE 2023 | SHERATON PETALING JAYA HOTEL, SELANGOR



From The AFPM President



W

elcome to the Academy of Family Physician Malaysia (AFPM) Annual Scientific Meeting 2023 & the 9th Asia Pacific Primary Care Research Conference (APPCRC).

The Academy of Family Physician Malaysia was founded by the College of General Practitioner that was officially formed in 1973. This year marked an important history in primary care service in this country as we are celebrating the golden jubilee of this training academy. The main focus of the AFPM is to promote high quality clinical practice, education and research for Malaysian General Practice.

The theme for this year's annual scientific meeting is "Gems of General Practice that Sustaineth and Sootheth in Storms". General Practice refer to services provided by primary care providers, be it in government or private setting. Primary care is regarded as the thrust of health care system worldwide. It is the point of first contact of health services. Primary care providers play important and crucial roles in health promotion, early case detection, treatment & rehabilitation hence regarded as precious 'gems'.



The Academy of Family Physician Malaysia research wing is run by the Malaysian Primary Care Research Group (MPCRG). The MPCRG collaborates with research groups from Asia Pacific countries to organize the Asia Pacific Primary Care Research Conference every two years. The theme for this year's APPCRC is "Research in the new norm". This is the first time that the AFPM's annual scientific meeting is held simultaneously with the APPCRC. Research is an important element in medical field as we are practicing Evidence Based Medicine. This conference provides conducive platform to enrich knowledge regarding research and opportunities to share various research projects. Hence, there are a lot to learn regarding research and the way forward in post pandemic era.

Lastly, I would like to thank all who has contributed to this conference and hope all delegates enjoy learning, networking and re-connecting.

Thank you.

Dr Norsiah Binti Ali
President AFPM 2023/2024



O10 Abstract Title:
A 3-Year Retrospective Study of Unintended Pregnancy in a Developed Multi-Ethnic Asian Community: A Call for Better Healthcare System for Family Planning

Authors:

Quak Xin En Stephanie (presenting author) [1], Sultana Rehena [1], Aau Wai Keong [2], Goh Chin Chin [2], Tan Ngiap Chuan [2] [3]

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[1] Duke-NUS Medical School, Singapore

[2] SingHealth Polyclinics, Singapore

[3] SingHealth-Duke NUS Family Medicine Academic Clinical Program, Singapore

O16 Abstract Title:
The Prevalence Of High Grit Among Type 2 Diabetes Mellitus Patients And The Associated Factors

Authors:

Abdul Latiff NA [1], Mohd Abd Rasid NS [1], Ahmad Zamzuri MAI [2], Mustapha FI [3]

Affiliation:

[1] Sendayan Health Clinic, Seremban, Negeri Sembilan, Malaysia [2]State Health Department of Negeri Sembilan, Seremban, Negeri Sembilan, Malaysia [3]Disease Control Division, Ministry of Health, Putrajaya, Malaysia.

O17 Abstract Title:
Patients Satisfaction Towards Healthcare Services And Its Associated Factors Among Patients Attending The Busiest Government Clinic In Pahang.

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O18 Abstract Title:
Acceptance of free opportunistic screening for Type 2 Diabetes Mellitus using point-of-care capillary haemoglobin-A1c testing in a public primary care clinic – A pilot study

Authors:

Yu Yte[1,2], Chan L[1,2,3], Wong Ct[1], Liu Sn[1], Mak Li[1], Wan Yfe[1,4,5], Lam Lkc[1]

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