

The Association Between Patient Satisfaction and other Related Factors at the Outpatient Department

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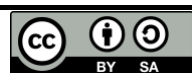
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ABSTRACT

Improving the quality of health in Malaysia contributes to improving national development. Patient satisfaction in public healthcare is the yardstick for healthcare quality to provide healthcare services effectively and accurately. The study aimed to define the relationship between patient satisfaction and other related factors in the outpatient department in a public clinic. Related factors investigated in this study were waiting time, staff interpersonal and technical quality, services, facility, and overall. The questionnaires were distributed to the patients visiting the outpatient department at a public clinic in Johor. A quantitative approach was used in this study. Although 500 questionnaires were distributed, only 447 were identified as complete questionnaires. The collected data on patient satisfaction from the questionnaire were analysed by SPSS Software using descriptive statistics (frequency (%), mean and standard deviation) and inferential statistics (independent t-test and ANOVA). The questionnaire analysed using SPSS software showed patient demographic information, disease characteristics, treatment, and other related factors. The level of patient satisfaction for waiting time, staff interpersonal and technical quality, service, and overall was tested using an independent t-test to determine whether there was a statistically significant difference between genders. The other is a one-way ANOVA, which examines whether status, the highest income, and frequency of hospital visits significantly affect patient satisfaction with waiting time.

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1. Introduction

Malaysia is one of the countries that offer the best health services in Southeast Asia. According to a report published in the Berita Harian newspaper on February 6, 2019, Malaysia was placed first in the world in the Best Healthcare category in the 2019 International Annual Global Retirement Index, scoring 95 out of 100 (Berita Harian, 2019). The Minister of Health, Khairy Jamaluddin, is convinced that good health can be achieved through adequate and functional healthcare facilities. He has suggested that six new initiatives worth RM3.4 billion be included in the 2023 Budget to develop Malaysia's healthcare system further. The six initiatives include strengthening the healthcare and well-being program, improving, and repairing the ministry's health facilities, increasing the effectiveness of healthcare treatment, replacing critical and obsolete medical assets, digitising healthcare services, and offering appreciation incentives for medical staff (Bernama, 2022).

A healthcare centre is one of life's most essential things. When people have a medical emergency, they usually head straight here. Healthcare centres provide four services: health promotion, disease prevention, diagnosis and treatment, and rehabilitation (Aziati & Hamdan, 2018; Safurah et al., 2013, p. 71). Health promotion aims to empower individuals to make positive changes to their health by increasing their influence on health-related determinants (Tannahill, 1985). The term "diagnosis" refers to how a doctor or specialist determines the nature of a patient's health problem by analysing the patient's symptoms, history, level of discomfort, and the results

of other diagnostic procedures. Next, treatment is providing care in the hopes that the patient will improve and eventually recover. Helping a person reach their maximum potential in terms of function, activity, involvement, and quality of life is the overarching goal of rehabilitation (Boothroyd, 2007). Rehabilitation is a process that aids a person in restoring their health, function, and overall well-being after adversity such as disease or trauma.

According to Dervaux et al. (2019) and Price et al. (2014), there are six main healthcare objectives: patient safety, effectiveness, patient-centred, punctuality, efficiency, and equality. Patient safety is preventing accidents from treatment that should be able to help him. Effectiveness is providing services to everyone who can benefit from them while avoiding under-use and over-use. Patient-centred provides a treatment that respects each patient's preferences, needs, and values. Next, punctuality decreased waiting time. Efficiency avoids wasting time and money, and equality provides equal-quality care regardless of personal characteristics.

There is a correlation between the health of the population and the improvement of national development. If people's health improves, the country's economy and development will have a positive ripple effect. As the population grows and people's living standards rise, so do the opportunities for them to get high-quality medical care. However, patient dissatisfaction with the services provided remains an issue in the provision of services in clinics in this country.

Healthcare institutions must prioritise patient satisfaction to fulfil patients' demands ethically while delivering compelling and accurate healthcare services (Abusalem et al., 2013). Patient satisfaction is the degree to which a patient is pleased with the care they receive from their healthcare professional (Manzoor et al., 2019). Durmuş and Akbolat (2020) define patient satisfaction as a complex combination of perceived requirements, healthcare goals, and care experience to predict patient behaviour. According to Xesfingi and Vozikis (2016), patient satisfaction is a significant indicator of healthcare quality and reflects healthcare providers' quality of services. This is one of the most crucial factors in determining a healthcare facility's effectiveness. The quality of public healthcare can be measured by how satisfied patients are with their treatment (Abusalem et al., 2013). If patient satisfaction is higher, the patients are willing to return to healthcare, comply with the treatment, and continue the relationship with the doctor (Azimatun et al., 2012).

Several factors contribute to patient dissatisfaction regarding waiting time, services, facilities, and cleanliness (Mansor et al., 2016; Wang et al., 2019). Nevertheless, the most typical factor plaguing the public healthcare system is the long waiting time, especially in the outpatient department (Aziati & Hamdan, 2018; Ortíz-Barrios & Alfaro-Saiz, 2020). Compared to the other departments, the outpatient department at a healthcare facility had the most waiting line issues, especially in the doctor's waiting room (Azraii et al., 2017). The factor affecting patient satisfaction include patient demographic characteristics such as gender, age, race, marital status, education level, and status (Chen et al., 2019; Djordjevic & Vasiljevic, 2019; Xie & Or, 2017; Zhang et al., 2016).

2. Experiment

2.1 Population and Sample

There have 500 respondents who participated in the study and held it for ten days. Although 500 questionnaires were distributed, only 447 were identified as complete questionnaires. This study's population was the patient's seeking treatment in the outpatient department at a public clinic in Johor. The questionnaires were distributed to the patients visiting the outpatient department.

- i. Inclusion criteria: Patients who visited a public clinic sought treatment at the outpatient department.
- ii. Exclusion criteria: Patients who came to a public clinic seek treatment at the dentistry, maternal and child, and emergency departments.

2.2 Study Design

To understand the objectives of the study, a quantitative approach was used in this study. The data collection method is a questionnaire. The questionnaire would be distributed to the patients to determine their satisfaction with the waiting time, staff interpersonal and technical quality, services, facility, and overall. The data collection would be held for ten days. The convenience sampling method was used in the selection where the researcher selected patients who were easily accessible at that time.

2.3 Approach and Method of the Research

The collected data on patient satisfaction from the questionnaire were analysed by SPSS software using descriptive statistics (frequency (%), mean and standard deviation) and inferential statistics (independent t-test and ANOVA).

2.4 Research Framework

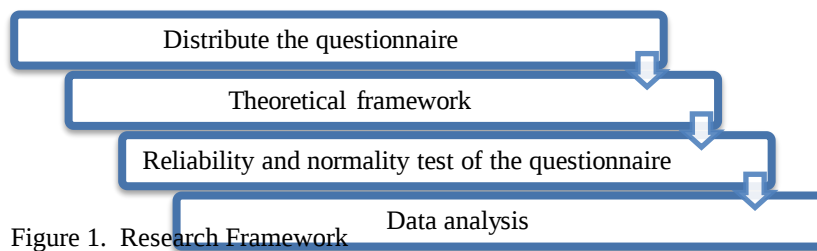


Figure 1. Research Framework

2.4.1 Distribute the questionnaire

There have 500 respondents who participated in the study and were selected by convenience sampling. However, only 447 were identified as complete questionnaires. The convenience sampling method was used in the selection where the researcher chose patients who were easily accessible.

There were three sections in the questionnaire. They were A) socio-demographic, B) disease characteristics and treatment, and C) patient satisfaction. Section A contained nine questions about age, race, status, education level, occupation type, and monthly income. There were seven questions related to patient status, type of disease, and patient frequency to the hospital in section B. Satisfaction levels of the patient on waiting time (7 questions), interpersonal staff and quality of technical (6 questions), facilities and factor of the physical environment (6 questions), management (5 questions), and overall patient satisfaction (5 questions) are in section C.

2.4.2 Theoretical framework

Socio-demographics such as gender, age, highest education, and monthly income can influence patient satisfaction. Typically, patients who come to health services seek prompt and timely services. Therefore, some questions would be asked in the questionnaire related to disease and treatment characteristics such as patient status, disease type, and frequency of patients to the hospital, as well as patient satisfaction level during the waiting time, interpersonal staff and technical quality, facilities, and environmental factors physical, management, and overall patient satisfaction. Through those questions, patient satisfaction with waiting for time and service provided in healthcare and the relationship of patient satisfaction with patient socio-demographics can be identified.

2.4.3 Reliability and normality test of the questionnaire

By Meng et al. (2019), the term "reliability" relates to the questionnaire's reliability and stability. Reliability refers to the degree to which a measurement of phenomena produces stable and consistent results (Taherdoost, 2016). Additionally, reliability was referred to as repeatability. Indicators of the reliability of the questionnaire are the Kendal coefficient and Cronbach's Alpha coefficient. However, Cronbach's Alpha coefficient is used in this study. It could be derived from SPSS Software.

By Masood & Lodhi (2016) and Meng et al. (2019), Cronbach's Alpha should be more than 0.8. However, the optimum value is higher than 0.7 if the number of question items for one factor is above 10. If a factor's total number of question items is less than ten, a Cronbach Alpha value less than 0.7 or even less than 0.6 is still acceptable.

Table 1. Reliability Test of The Questionnaire

Variables	Cronbach Alpha	N
Waiting time	97.3%	7
Interpersonal of staff	97.3%	6
Facility and environment	96.1%	7
Service	96.9%	5
Overall	96.3%	5
Average	97.5%	

The table above showed the overall reliability of the questionnaire, which was 97.5%, as well as the reliability (Cronbach Alpha) values of the sub-categories of waiting (97.3%), interpersonal staff (97.3%), facility and environment (96.1%), service (96.9%) and overall (97.5%). So, the reliability statistics of the questionnaire was 97.5%.

During conducting data analysis, it was crucial to examine and verify that the data met the normality requirement (Kwak & Park, 2019). There were two main methods of assessing normality which were

graphically and numerically. The SPSS software is the best tool for a normality test. This is so that output from the SPSS software can be numerical data, tables, and graphs.

Table 2. Normality Test of The Questionnaire

Mean	Skewness
MEANCW	-0.742
MEANCS	-0.389
MEANCSI	-0.334
MEANCFPE	-0.482
MEANCO	-0.536

The skewness of the mean of waiting time is -0.742, the mean of services is -0.389, the mean of staff interpersonal is -0.334, the mean of facilities is -0.482, and the mean of overall is -0.536. Since the skewness value is between -1.96 and 1.96, the values were average.

2.4.4 Data Analysis

Descriptive statistics and inferential statistics methods were applied using SPSS version 20. The frequency (%), mean, and descriptive statistics could obtain standard deviation. An independent t-test and a one-way ANOVA (Analysis of Variance) could be obtained using inferential statistics. The independent t-test would be utilised for two-state qualitative variables, such as gender. The one-way ANOVA (Analysis of Variance) test would be used for ordinal quantitative variables (status or highest income) and multiple qualitative variables.

3. Results and Discussion

3.1 Patient Demographic

This study involved outpatient respondents from a government clinic in Johor. Although 500 questionnaires were distributed, only 447 were identified as complete questionnaires. Fifty-three questionnaires were rejected because most questions were left unanswered, incomplete, inconsistent data, or were lost/not returned. The following is a detailed description of the background of the study sample.

Table 3. Patient Demographic

Patient Demographics		Frequency	Percent (%)
Gender	Male	196	43.8
	Female	251	56.2
Age	0-17	38	8.5
	18-25	92	20.6
	26-35	67	15.0
	36-50	99	22.1
	51-65	94	21.0
	66 above	57	12.8
Nationality	Citizen	439	98.2
	Non-citizen	8	1.8
Status	Single	163	36.5
	Married	239	53.5
	Divorce	45	10.1
Race	Malay	364	81.4
	Chinese	56	12.5
	Indian	20	4.5
	Asli	3	0.7
	Sabah/Sarawak	3	0.7
	Others	1	0.2
Religion	Islam	361	80.8
	Buddha	44	9.8
	Hindu	22	4.9
	Christian	20	4.50
	Others	0	0
Educational level	Primary	67	15.0
	Secondary	276	61.7
	STPM/Diploma	67	15.0
	Degree	33	7.4

Type of occupation	Masters	2	0.4
	PHD	2	0.4
	Self-working	64	14.3
	Government	30	6.7
	Private	102	22.8
	Students	72	16.1
	Pensioner	29	33.6
Monthly income	Not Working	150	20
	-	220	49.2
	≤ RM1,000	53	11.9
	RM1,001-RM2,000	123	27.5
	RM2,001-RM3,000	34	7.6
	RM3,001-RM5,000	12	2.7
	≥ RM5,001	5	1.1

Of the total of 447, male respondents were (196, 43.8%) and female respondents were (251, 56.2%). According to the data, there were more female respondents than men who participated in the study. The age group of 36-50 obtained the highest frequency (99, 22.1%). The nationality group of citizens obtained the highest frequency (439, 98.2%). The status group of married is the highest frequency (239, 53.5%). The race group of Malay obtained the highest frequency (364, 81.4%). Islam's religion group obtained the highest frequency (361, 80.8%). The highest education group of secondary education obtained the highest frequency (276, 61.7%). Hence, the number of respondents working in the no working who followed this study was more significant than the others (150, 33.6%). Lastly, the number of participants in this study who no-earned income was higher than the others (220, 49.2%).

3.2 Characteristics of Disease and Treatment

According to these findings, the number of respondents of appointment who followed this study was larger than the others (246, 55.0%). The number of regular respondents who followed this study was larger than the others (161, 36.0%). The health status group of goods is the highest frequency (248, 55.5%). The visit to the hospital group several times a year obtained the highest frequency (213, 47.7%). Hence, the number of respondents receiving oral medication who followed this study was larger than the others (244, 54.6%). The number of respondents who received medication 1-2 months following this study was larger than the others (93, 20.8%). Lastly, the number of respondents who received doctor appointments who followed this study was larger than the others (303, 67.8%).

Table 4. Characteristics of Disease and Treatment

Characteristics of Disease and Treatment		Frequency	Percent (%)
Patient Status	New Patient	133	29.8
	Appointment	246	55.0
	Lab Test	37	8.3
	Dressing	31	6.9
Characteristic Disease	Regular	161	36.0
	Acute	49	11.0
	Chronic	152	34.0
	Unknown	85	19.0
Health Status	Too Worse	3	0.7
	Worse	34	7.6
	Moderate	134	30.0
	Good	248	55.5
	Too Good	28	6.3
Visit to Hospital	Several Times A Week	36	8.1
	Once A Week	41	9.2
	Several Times A Month	49	11.0
	Once A Month	59	13.2
	Several Times A Year	213	47.7
	Once A Year	49	11.0
Method of Drug Administration	Oral	244	54.6
	Topical	159	35.6
	Inhale	28	6.3
	Injection	16	3.6

Prescription Period	Less Than a Week	206	46.1
	1-2 Weeks	108	24.2
	2-4 Weeks	40	8.9
	1-2 Months	693	20.8
	Follow-Up Actions from Doctor		
	No	127	28.4
	Doctor Appointment	303	67.8
	Lab Test	14	3.1
	Admitted To Ward	3	0.7

3.3 Descriptive Statistics

The descriptive analysis measured through percentage, the mean and standard deviation were used to explain the study's findings on patient satisfaction and other related factors. Several factors affect patient satisfaction with healthcare, such as waiting time, interpersonal staff and technical quality, facilities and physical environment, services, and overall.

3.3.1 Waiting time

Based on the data, what can be concluded was that the descriptive analysis for the level of patient satisfaction with waiting time at the laboratory unit had the highest score value (mean = 3.77, s.d. 0.610). Next, waiting time at the pharmacy station was (mean = 3.75, s.d. 0.615), followed by entrance triage (mean = 3.75, s.d. 0.650). Waiting time at the registration section was (mean = 3.74, s.d. 0.647); hence, waiting time at the radiology unit was (mean = 3.74, s.d. 0.614), waiting time at patient triage was (mean = 3.73, s.d. 0.629). Next, the waiting time at the doctor's triage was (mean = 3.70, s.d. 0.683). The average mean for patient satisfaction with waiting time was (mean 3.7402, s.d. 0.58980).

Table 5. Waiting Time

Waiting Time	Percent (%)					Mean	SP
	VB	B	N	G	VG		
Waiting Time at Entrance Triage	0.4	3.8	22.8	66.4	6.5	3.75	0.650
Waiting Time at Patient Triage	0.2	3.8	24.2	66.4	5.4	3.73	0.629
Waiting Time at Registration Section	0.4	3.4	24.2	65.3	6.7	3.74	0.647
Waiting Time at Doctor's Triage	1.1	4.3	23.5	66.0	5.1	3.70	0.683
Waiting Time at Radiology Unit	0.4	2.7	24.4	67.3	5.1	3.74	0.614
Waiting Time at Laboratory Unit	0.4	2.9	21.5	69.8	5.4	3.77	0.610
Waiting Time at Pharmacy Station	0.2	3.6	22.1	68.7	5.4	3.75	0.615
Average mean						3.7402	0.58980

*VB (Very Bad), B (Bad), N (Neutral), G (Good), VG (Very Good)

3.3.2 Staff interpersonal and technical quality

Descriptive analysis for the level of patient satisfaction of staff interpersonal and technical quality for doctor's sincerity when providing treatment had the highest score (mean = 3.94, s.d. 0.557). For doctor service to patients (mean 3.93, s.d. 0.591). Next, the doctor's diagnosis and level of treatment was (mean = 3.92, s.d. 0.568), and the doctor's explanation of diseases, complications, medicines, and follow-up treatment was (mean = 3.92, s.d. 0.553). The attitude and treatment of nurses and staff at the clinic were (mean = 3.92, s.d. 0.551), and doctors' respect and understanding of patients' feelings were (mean = 3.91, s.d. 0.555). The average mean for the level of patient satisfaction of staff interpersonal and technical quality was (mean 3.9236, s.d. 0.52852).

Table 6. Staff Interpersonal and Technical Quality

Staff Interpersonal and Technical Quality	Percent (%)					Mean	SP
	VB	B	N	G	VG		
Doctor Service to Patients	0.4	0.9	15.9	70.9	11.9	3.93	0.591
Doctor's Sincerity When Providing Treatment	0	0.9	15.9	71.4	11.9	3.94	0.557
Diagnosis And Level of Treatment by Doctor	0.4	0.7	15.9	72.7	10.3	3.92	0.568
Doctor's Explanation of Diseases, Complications, Medicines, and Follow-Up Treatment	0.2	0.7	16.1	72.7	10.3	3.92	0.553
Doctors' Respect and Understand Patients' Feelings	0.2	0.9	16.3	72.9	9.6	3.91	0.555
Attitude And Treatment of Nurses and Staff at The Clinic	0	0.7	17.2	71.1	11.0	3.92	0.551

Average mean	3.9236	0.52852
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*VB (Very Bad), B (Bad), N (Neutral), G (Good), VG (Very Good)

3.3.3 Facilities and physical environment

Descriptive analysis for the level of patient satisfaction with facilities and physical environment for environment and hygiene in the clinic had the highest score (mean = 3.92, s.d. 0.561). Comfort in the clinic was (mean = 3.91, s.d. 0.545), for clinical location suitability was (mean 3.91, s.d. 0.539). Next, clinical service hours were (mean = 3.90, s.d. 0.565), public facilities to go to the clinic was (mean = 3.88, s.d. 0.600), and facilities, toilets, canteen, and parking was (mean = 3.87, s.d. 0.634). The average mean for the level of patient satisfaction with facilities and physical environment was (mean 3.8990, s.d. 0.52579).

Table 7. Facilities And Physical Environment

Facilities And Physical Environment	Percent (%)					Mean	SP
	VB	B	N	G	VG		
Clinical Location Suitability	0	0.4	17.9	71.6	10.1	3.91	0.539
Public Facilities to Go to The Clinic	0.9	0.4	17.9	71.1	9.6	3.88	0.600
Clinical Service Hours	0.4	0.4	17.4	72.0	9.6	3.90	0.565
Facilities, Toilets, Canteen, And Parking	0.9	1.8	16.8	70.7	9.8	3.87	0.634
Environment And Hygiene in The Clinic	0.2	0.9	15.9	72.5	10.5	3.92	0.561
Comfort In the Clinic	0	0.9	17.0	72.3	9.8	3.91	0.545
Average mean						3.8990	0.52579

*VB (Very Bad), B (Bad), N (Neutral), G (Good), VG (Very Good)

3.3.4 Services

Descriptive analysis for the level of patient satisfaction with service charges had the highest score value (mean = 3.94, s.d. 0.532). For doctor services in the outpatient department, was (mean 3.92, s.d. 0.521). Next, the variation of services provided was (mean = 3.91, s.d. 0.535), and staff services in the outpatient department were (mean = 3.91, s.d. 0.529). Complete medical equipment was (mean = 3.90, s.d. 0.529). The average mean for the level of patient satisfaction with services was (mean 3.9177, s.d. 0.49899).

Table 8. Services

Services	Percent (%)					Mean	SP
	VB	B	N	G	VG		
Doctor Services in The Outpatient Department	0	0.4	16.6	73.6	9.4	3.92	0.521
Staff Services in The Outpatient Department	0.2	0.7	15.2	75.2	8.7	3.91	0.529
Complete Medical Equipment	0	0.9	16.6	73.8	8.7	3.90	0.529
Variation Of Services Provided	0	0.9	16.3	73.4	9.4	3.91	0.535
Service Charges	0	0.9	14.8	74.0	10.3	3.94	0.532
Average mean						3.9177	0.49899

*VB (Very Bad), B (Bad), N (Neutral), G (Good), VG (Very Good)

3.3.5 Overall

Descriptive analysis for the level of patient satisfaction overall for will come again for the future had the highest score value (mean = 3.93, s.d. 0.543), and for satisfaction with the satisfied with the services was (mean 3.91, s.d. 0.564). Next, satisfaction with the facilities and physical environment was (mean = 3.89, s.d. 0.564). Satisfied with interpersonal staff and technical quality was (mean = 3.89, s.d. 0.574) and satisfaction with the waiting time at the clinic was (mean = 3.84, s.d. 0.627). The average mean for the level of patient satisfaction overall was (mean 3.8917, s.d. 0.53664).

Table 9. Overall

Overall	Percent (%)					Mean	SP
	VB	B	N	G	VG		
Satisfied With the Waiting Time at The Clinic	0.4	2.7	18.3	69.8	8.7	3.84	0.627
Satisfied With Interpersonal Staff and Technical Quality	0.2	1.3	17.0	71.8	9.6	3.89	0.574
Satisfied With the Facilities and Physical Environment	0.2	1.1	17.0	72.3	9.4	3.89	0.564
Satisfied With the Services	0	1.3	17.0	71.4	10.3	3.91	0.564
Will Come Again for The Future	0	0.7	16.6	72.0	10.7	3.93	0.543
Average mean						3.8917	0.53664

*VB (Very Bad), B (Bad), N (Neutral), G (Good), VG (Very Good)

Table 10. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Waiting Time	447	1.71	5.00	3.7402	0.58980
Staff Interpersonal and Technical Quality	447	2.00	5.00	3.9236	0.52852
Services	447	2.00	5.00	3.9177	0.49899
Facilities And Physical Environment	447	1.83	5.00	3.8990	0.52579
Overall	447	1.80	5.00	3.8917	0.53664
Valid N (listwise)	447				

The total number of respondents for the study was 447 respondents. The questionnaire found that patient satisfaction in outpatient clinics on staff interpersonal and technical quality was at the higher level (mean = 3.9236 and s.d. = 0.52852), followed by services (mean = 3.9177 and s.d. = 0.49899), followed by facilities and physical environment (mean = 3.8990 and s.d. = 0.52579), following with overall (mean = 3.8917 and s.d. = 0.53664), and the lowest patient satisfaction in outpatient clinics on waiting time (mean = 3.7402 and s.d. = 0.58980).

3.4 Inferential Statistics

The two most used statistical techniques for comparing group means were independent t-tests and one-way ANOVA (Analysis of Variance). The independent sample t-test compares data, like personal income or the difference in grade point average (GPA) between male and female students (Park, 2009). Specifically, the independent sample t-test compares the target variable's mean to the value that has been hypothesised.

While one-way ANOVA was used to assess the relationship between the categorical independent variable (IV) and the continuous dependent variable (DV), where each subject was only in one level of the categorical independent variable (IV) (DeCoster & Claypool, 2004). This indicated that an independent sample t-test could be used to compare the means of the two groups. In contrast, a one-way ANOVA (Analysis of Variance) can compare more than two groups.

3.4.1 Independent T-Test

There were several hypotheses for this study.

H₀₁ = There was no significant difference in the level of patient satisfaction for waiting time based time-based.

- H₀₂ = There was no significant difference in the level of patient satisfaction for staff interpersonal and technical quality based on gender.
- H₀₃ = There was no significant difference in the level of patient satisfaction for facilities and physical environment based on gender.
- H₀₄ = There was no significant difference in the level of patient satisfaction services based on gender.
- H₀₅ = There was no significant difference in the level of patient satisfaction overall based on gender.

3.4.1.1 Waiting time

Table 11. Mean And Standard Deviation of Male and Female for Waiting Time

	Gender	N	Mean	T-value	df	Sig.
Waiting time	Men	196	3.7245	-0.496	445	0.620
	Female	251	3.7524			

Table 12. The Independent T-Test Results for Waiting Time Between Male and Female

		Independent Samples Test								
		Levene's Test for Equality of Variances		T-Test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of The Difference	
									Lower	Upper
Waiting Time	Equal Variances Assumed	0.759	0.384	-0.496	445	0.620	-0.02793	0.05627	-0.13851	0.08266
	Equal Variances Not Assumed			-0.501	432.426	0.617	-0.02793	0.05573	-0.13747	0.08161

Levene's test in Table 12 shows the homogeneity of variance of the waiting time between males and females ($F=0.759$; $p>0.05$). This fulfils one of the key assumptions for the independent samples t-test, meaning variance is homogeneous in the waiting time. Therefore, the "Equal variance assumed" calculation is used to make inferences.

Table 11 and Table 12 found that the t-value for the comparison between males and females regarding the level of patient satisfaction with waiting time is $t(447) = -0.496$, and the significant level is $p = 0.620$. The significance level is greater than 0.05 ($p>0.05$). Therefore, the null hypothesis (H_0) is accepted. So, there is no significant difference between males and females in the level of patient satisfaction with waiting time.

The mean score of males (mean=3.7245) is smaller than that of females (mean=3.7524). This means that the level of patient satisfaction with waiting time between males and females is the same.

3.4.1.2 Staff interpersonal and technical quality

Table 13. Mean and Standard Deviation of Male and Female for Staff Interpersonal and Technical Quality

	Gender	N	Mean	T-value	df	Sig.
Staff interpersonal and technical quality	Men	196	3.9150	-0.304	445	0.762
	Female	251	3.9303			

Table 14. The Independent T-test Results for Staff Interpersonal and Technical Quality Between Male and Female

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Staff Interpersonal and Technical Quality	Equal variances assumed	0.027	0.869	-0.304	445	0.762	-0.01531	0.05043	-0.11442	0.08380
	Equal variances not assumed			-0.305	424.691	0.761	-0.01531	0.05024	-0.11407	0.08345

Levene's test in Table 4.14 shows the homogeneity of variance of the staff interpersonal and technical quality between males and females ($F=0.027$; $p>0.05$). This fulfils one of the key assumptions for the independent samples t-test, meaning that variance is homogeneous in the staff's interpersonal and technical quality. Therefore, the "Equal variance assumed" calculation is used to make inferences.

Based on Table 4.13 and Table 4.14, it was found that the t-value for the comparison between males and females regarding the level of patient satisfaction with the staff interpersonal and technical quality is $t(447) = -0.304$, and the significant level is $p=0.762$. The significance level is greater than 0.05 ($p>0.05$). Therefore, the null hypothesis (H_0) is accepted. So, there is no significant difference between males and females in the level of patient satisfaction with the staff's interpersonal and technical quality.

The mean score of males (mean=3.9150) is smaller than that of females (mean=3.9303). This means that the level of patient satisfaction with staff interpersonal and technical quality between males and females is the same.

3.4.1.3 Facilities and physical environment

Table 15. Mean and Standard Deviation of Male and Female for Facilities and Physical Environment

	Gender	N	Mean	T-value	df	Sig.
Facilities and physical environment	Men	196	3.8946	-0.156	445	0.876
	Female	251	3.9024			

Table 16. The Independent T-test Results for Facilities and Physical Environment Between Male and Female

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Facilities and physical environment	Equal variances assumed	0.052	0.821	-0.156	445	0.876	-0.00783	0.05017	-0.10644	0.09077
	Equal variances not assumed			-0.157	425.350	0.876	-0.00783	0.04997	-0.10604	0.09038

Levene's test in Table 4.16 shows the homogeneity of variance of the facilities and physical environment between males and females ($F=0.052$; $p>0.05$). This fulfils one of the key assumptions for the independent samples t-test, meaning variance is homogeneous in the facilities and physical environment. Therefore, the "Equal variance assumed" calculation is used to make inferences.

Based on Table 4.15 and Table 4.16, it was found that the t-value for the comparison between males and females regarding the level of patient satisfaction with the facilities and physical environment is $t(447) = -0.156$, and the significant level is $p=0.876$. The significance level is greater than 0.05 ($p>0.05$). Therefore, the null hypothesis (H_0) is accepted. So, there is no significant difference between males and females in the level of patient satisfaction with the facilities and physical environment.

The mean score of males (mean=3.8946) is smaller than that of females (mean=3.9024). This means that the level of patient satisfaction with the facilities and physical environment between males and females is the same.

3.4.1.4 Services

Table 17. Mean and Standard Deviation of Male and Female for Services

	Gender	N	Mean	T-value	df	Sig.
Services	Men	196	3.9010	-0.623	445	0.534
	Female	251	3.9307			

Table 18. The Independent T-test Results for Services Between Male and Female

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Services	Equal variances assumed	0.259	0.611	-0.623	445	0.534	-0.02966	0.04760	-0.12320	0.06389
	Equal variances not assumed			-0.629	432.554	0.530	-0.02966	0.04714	-0.12230	0.06299

Levene's test in Table 4.18 shows the homogeneity of variance of the services between males and females ($F=0.259$; $p>0.05$). This fulfils one of the key assumptions for the independent samples t-test, meaning variance is homogeneous in the services. Therefore, the "Equal variance assumed" calculation is used to make inferences.

Based on Table 4.17 and Table 4.18, it was found that the t-value for the comparison between males and females regarding the level of patient satisfaction with the services is $t(447) = -0.623$ and the significant level is $p=0.534$. The significance level is greater than 0.05 ($p>0.05$). Therefore, the null hypothesis (H_0) is accepted. So, there is no significant difference between males and females in the level of patient satisfaction with the services.

The mean score of males (mean=3.9010) is smaller than that of females (mean=3.9307). This means that the level of patient satisfaction with services between males and females is the same.

3.4.1.5 Overall

Table 19. Mean And Standard Deviation of Male and Female for Satisfaction for Overall Factors

	Gender	N	Mean	T-value	df	Sig.
Overall	Men	196	3.8867	-0.173	445	0.862
	Female	251	3.8956			

Table 20. The Independent T-test Results for Satisfaction for Overall Factors Between Male and Female

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Satisfaction for Overall Factors	Equal variances assumed	0.553	0.457	-0.173	445	0.862	-0.00888	0.05121	-0.10952	0.09176
	Equal variances not assumed			-0.175	430.787	0.861	-0.00888	0.05079	-0.10871	0.09094

Levene's test in Table 4.20 shows the homogeneity of variance of the satisfaction for overall factors between males and females ($F=0.553$; $p>0.05$). This fulfils one of the key assumptions for the independent samples t-test, meaning that variance is homogeneous in the satisfaction for overall factors. Therefore, the "Equal variance assumed" calculation is used to make inferences.

Based on Table 4.19 and Table 4.20, it was found that the t-value for the comparison between males and females regarding the level of patient satisfaction with the satisfaction for overall factors is $t(447) = -0.173$, and the significant level is $p=0.862$. The significance level is greater than 0.05 ($p>0.05$). Therefore, the null hypothesis (H_0) is accepted. So, there is no significant difference between males and females in the level of patient satisfaction with the satisfaction for overall factors.

The mean score of males (mean=3.8867) is smaller than that of females (mean=3.8956). This means that the level of patient satisfaction with satisfaction for overall factors between males and females is the same.

3.4.2 One-way ANOVA (analysis of variance) test

There were several hypotheses for this study.

- i. H_{01} = There was no significant difference in the level of patient satisfaction for waiting time based on status.
- ii. H_{02} = There was no significant difference in the level of patient satisfaction for waiting time based on the highest income.
- iii. H_{03} = There was no significant difference in the level of patient satisfaction with waiting time based on the frequency of hospital.

3.4.2.1 Waiting time and status

Table 21. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.237	2	444	0.291

Based on the homogeneity of variances, the significance value was 0.291, which was $p > 0.05$. So, the data was normal, and the researcher could do an analysis.

Table 22. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.148	2	0.574	1.655	0.192
Within Groups	154.001	444	0.347		
Total	155.149	446			

Based on the table above, the significance value was 0.192, which was $p > 0.05$. So, the null hypothesis was accepted: there was no significant difference in the level of patient satisfaction for waiting time based on status (single, married or divorced).

3.4.2.2 Waiting time and highest income

Table 23. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
2.160	5	441	0.058

Based on the homogeneity of variances, the significance value was 0.058, which was $p > 0.05$. So, the data was normal, and the researcher could do an analysis.

Table 24. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.599	5	0.520	1.503	0.188
Within Groups	152.551	441	0.346		
Total	155.149	446			

Based on the table above, the significance value was 0.188, which was $p > 0.05$. So, the hypothesis null was accepted, which was that there was no significant difference in the level of patient satisfaction for waiting time based on highest income (no, below RM1,000, RM1000-RM2000, RM2000-RM3000, RM3000-RM5000 and above RM5000).

3.4.2.2 Waiting time and frequency to hospital

Table 25. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.254	5	441	0.283

Based on the homogeneity of variances, the significance value was 0.283, which was $p > 0.05$. So, the data was normal, and the researcher could do an analysis.

Table 26. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.373	5	0.075	.212	0.957
Within Groups	154.777	441	0.351		
Total	155.149	446			

Based on the table above, the significance value was 0.957, which was $p > 0.05$. So, the hypothesis null was accepted, which was that there was no significant difference in the level of patient satisfaction with waiting time-based on frequency to the hospital (several times a week, once a week, several times a month, once a month, several times a year, once a year).

4. Conclusion

Five hundred questionnaires about patient satisfaction with waiting time and services provided at the health clinic were distributed in ten days, but only 447 were returned. Based on the questionnaire, some information has been gathered. The descriptive and inferential analyses were applied and analysed in SPSS software.

Based on the descriptive analysis, patient satisfaction in outpatient clinics on staff interpersonal and technical quality was at a higher level (mean = 3.9236 and s.d. = 0.52852), followed by services (mean = 3.9177 and s.d. = 0.49899), following with facilities and physical environment (mean = 3.8990 and s.d. = 0.52579), following with overall (mean = 3.8917 and s.d. = 0.53664), and the lowest patient satisfaction in outpatient clinics on waiting time (mean = 3.7402 and s.d. = 0.58980).

There are two tests for inferential analysis: independent t-test and one-way ANOVA. Several hypotheses were made for independent t-tests between factors that affected patient satisfaction towards gender. For waiting time, there were no significant differences between males and females. There were no significant differences between staff interpersonal and technical quality between males and females. There were no significant differences between males and females in facilities and physical environment. For services, there were no significant differences between males and females. Overall, there were no significant differences between males and females.

In one-way ANOVA, several hypotheses were also tested between waiting time with status, the highest income, and frequency to hospital. The study showed no significant difference in patient satisfaction with waiting time-based on status (single, married, and divorced). For the highest income, the level of patient satisfaction for waiting time was the same (no, below RM1000, RM1000-RM2000, RM2000-RM3000, RM3000-RM5000, and above RM5000). For frequency to hospital, there was no significant difference in the level of patient satisfaction for waiting time (several times a week, once a week, several times a month, once a month, several times a year, once a year).

Based on the results of descriptive analysis, the researcher can conclude that patients are satisfied with the waiting time and services provided at the health clinic. However, patient satisfaction with waiting time is the lowest compared to other factors. Based on an independent t-test between the decision factors that affect patient satisfaction with gender, the researcher found no difference of opinion between men and women regarding waiting time, interpersonal and technical quality of staff, facilities, physical environment, service, and overall. Similarly, no difference was found when performing a one-way ANOVA test between patient satisfaction with waiting for time regarding status, the highest income, and frequency to the hospital.

The satisfaction level indicates how happy a patient is with the treatment they got from their healthcare professional and measures the healthcare quality, especially in the outpatient department. So, we can see how unhappy patients are with the problem of waiting time in healthcare, and this problem can lead to overall patient satisfaction. At the end of the study, the relationship between patient satisfaction and waiting time, staff interpersonal and technical quality, services, facility, and overall can be defined.

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