

Assessing Patient Satisfaction In Public Healthcare: The Impact Of Professional Relationships, Skills, And Facility Amenities

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ABSTRACT

Introduction: Public healthcare services play an essential role in providing health facilities or services for citizens who seek fundamental medical services. Patients' satisfaction with healthcare services is mainstream as they are the service consumers. Therefore, it reflects how effective the services that have been given by the health care provider are.

Objectives: to investigate the influence of relationships and interaction with healthcare professionals, perception of healthcare professional skills, amenities, and registration and administrative procedures towards patient satisfaction.

Methods: A total of 160 sets of questionnaires received from the respondent of purposive sampling through the online survey that was analyzed with descriptive and inferential technique of correlation, and regression. **Results:** The relationship and interaction with healthcare professionals ($\beta = 0.281, p < 0.01$), perception of healthcare professionals' skills ($\beta = 0.396, p < 0.01$), registration and administration process ($\beta = 0.117, p < 0.01$), and evaluation of amenities, accessibility, and facilities ($\beta = 0.164, p < 0.01$) were all significant predictors of patient satisfaction. **Conclusions:** By prioritizing the development of strong professional relationships, improving perceived skills of healthcare providers, optimizing administrative processes, and upgrading facility amenities, healthcare providers and policymakers can foster environments where patient satisfaction and overall healthcare quality thrive.

Introduction

Satisfaction is a decisive factor for the effectiveness of government measures and the success of companies, especially in connection with the provision of services. High levels of satisfaction are typically achieved through providing high-quality services based on effective service delivery, cost allocation, and management strategies (Sun et al., 2017). In healthcare, patient satisfaction in particular serves as a key indicator of the quality and effectiveness of healthcare services. According to Hussain et al. (2019), patient satisfaction is an attitude that reflects whether the patient's expectations of healthcare services have been met. This satisfaction is important not only to ensure treatment adherence but also to improve overall health outcomes.

In Malaysia, the healthcare system has developed considerably since the country's independence in 1957, providing the population with a comprehensive range of services (Hasali et al., 2014). Primary health care is provided by two parallel systems: public clinics managed by



the Ministry of Health (MOH) and private clinics owned by individual doctors (Safurah et al., 2013). Despite the numerical dominance of the private sector, with a ratio of six private clinics to one public clinic, the public clinics record a higher number of patient visits (Sivasampu et al., 2016). This paradox emphasises the importance of patient satisfaction in public healthcare services, as high satisfaction is crucial to maintain patient trust and ensure continued use of these services.

Globally, patient satisfaction has attracted attention in both developed and developing countries, which has led to various efforts to develop validated instruments to measure it (Stepurko et al., 2016). The healthcare industry recognises patient satisfaction as an important indicator of success, with excellent service defined by the extent to which perceptions exceed expectations (Neupane & Devkota, 2017). High patient satisfaction is also related to the likelihood of further utilisation of healthcare facilities and adherence to medical advice, which affects the overall coverage and effectiveness of care (Osiya et al., 2017). In addition, interprofessional collaboration has been shown to have a positive impact on patient satisfaction (Will et al., 2017).

There is ample evidence in the literature that patient experience strongly influences satisfaction, particularly in the context of interpersonal relationships with healthcare providers (Blut et al., 2014; Lee et al., 2020). Studies have shown that the quality of interpersonal care, including aspects such as communication, empathy, and emotional support, is an important determinant of patient satisfaction (Ganasegeran et al., 2015; Batbaatar et al., 2017). Socio-demographic factors also play a role, although their impact on satisfaction is often inconsistent, so further research is needed to fully understand their influence.

Previous research has identified several factors that predict patient satisfaction, including the quality of communication between patients and healthcare providers, the clarity of information provided, and the level of emotional support offered (Deledda et al., 2013). In Saudi Arabia, for example, Alsayali et al. (2019) found that a lack of time and communication on the part of doctors significantly reduced patient satisfaction. Similarly, studies in Africa have emphasized the importance of maintaining high standards of service quality to ensure patient satisfaction, especially in the face of challenges such as long waiting times and physician burnout (Kokou et al., 2015; Ivany & Lane, 2021). In particular, long wait times have been repeatedly identified as a predictor of patient dissatisfaction, with studies showing that positive communication can mitigate some of the negative effects (Lee et al., 2022; Xie & Or, 2017).

Despite the extensive literature on patient satisfaction, there is still a gap in understanding the specific factors that contribute to satisfaction in public healthcare facilities in Malaysia. While previous studies have examined various aspects of patient satisfaction globally, there is little research that focuses on the specific challenges faced by public healthcare services in Malaysia, particularly in the context of balancing high patient volume with the need to maintain service quality.

However, as noted by Mimi et al. (2011), the relationship between patient satisfaction and health outcomes and the factors that influence patient satisfaction remain insufficiently understood. Therefore, this study aims to assess patient satisfaction with public health services in the Klang Valley and, in particular, to examine the factors that contribute to satisfaction and how these factors may influence overall health outcomes.

Methods

This study utilises a quantitative research design to systematically investigate the relationship between multiple factors and patient satisfaction in public healthcare in the Klang



Valley. The Klang Valley was selected as the study site as it is one of the fastest growing metropolitan areas in Malaysia, with a population of 7.2 million, accounting for about a quarter of the country's total population in 2012 (Behrouzi, 2018).

In this study, a purposive sample was used to select respondents. Purposive sampling is a non-random technique that does not require a fixed number of participants and does not rely on underlying theories. The researcher selected participants based on their ability and willingness to provide relevant information and experiences related to the research topic. As Etikan, Musa, and Alkaasim (2017) explain, purposive sampling aims to identify and select individuals or groups who are knowledgeable and well-informed about the phenomenon of interest. The concept behind this sampling method is to focus on individuals with unique characteristics that can better support the research objectives.

An online survey was conducted to collect data from people who have experience of utilising public health services in the Klang Valley. The survey targeted a sample of 160 patients, with purposive sampling to ensure that respondents had relevant experience. The self-administered questionnaire was randomly distributed via online platforms. Respondents were asked to indicate the extent to which they agreed with various statements about their healthcare experience using a five-point Likert scale. The scale ranged from "strongly disagree" to "strongly agree", with a neutral option in the middle, and "neither agree nor disagree" This method allowed for a nuanced understanding of patient perceptions and satisfaction scores.

The survey instrument used in this study consisted of several sections designed to measure different aspects of patient satisfaction. The first section dealt with demographic information and contained nine questions developed specifically for this study. The second section assessed general patient satisfaction, which consisted of nine items and was based on the work of Hassali et al. (2014). The third section examined the relationship and interaction with healthcare professionals and consisted of eight items, also adapted from Hassali et al. (2014). The fourth section measured patients' perceptions of healthcare professionals' skills, with six items taken from the same study. The fifth section assessed the amenities, accessibility, and facilities, consisting of five items, again taken from Hassali et al. (2014). Finally, the sixth section examined registration and administrative procedures with six items adapted from Kamra et al. (2016).

The sample size for this study was determined following the guidelines of Vanvoorhis, Carmen, Wilson, and Morgan (2007), who suggest that a sample size ranging from 30 to 500 is appropriate for most studies, with 50 being acceptable for analyses such as correlation and regression. To minimise the risk of error associated with overly large samples, a sample size of 160 patients was chosen in this study, each of whom had a recent experience with public health services in the Klang Valley. This size was considered appropriate to ensure both the reliability and validity of the statistical analyses.

The data collected through the survey was subjected to both descriptive and inferential statistical analysis using the Statistical Package for Social Sciences (SPSS) version 23. The descriptive analysis provided a summary of respondents' demographics and overall trends in their responses, while the inferential analysis, including regression analysis, was conducted to examine the relationships between the independent variables (factors influencing patient satisfaction) and the dependent variable (overall patient satisfaction). In particular, the regression analysis aimed to quantify the impact of each factor on patient satisfaction and thus identify the most important factors that should be addressed by healthcare providers to improve service quality and patient outcomes in the Klang Valley public healthcare system.



Results

Table 2 shows the demographic characteristics of the respondents who participated in this study. The majority (71.3%) of respondents were female. 75.6% of respondents have at least a bachelor's degree and 71 of them are employed. Of those in employment, 35% work in the private sector. In addition, 23.8% of respondents state that they are in poor health.

Table 2: Respondents' Profile

Particulars	Variables	Frequency (N)	Percentage (%)
Gender	Male	46	28.7
	Female	114	71.3
Education	Primary school	0	0
	Secondary school	15	9.4
	Diploma / STPM	24	15.0
	Degree and above	121	75.6
Job Status	Working	71	44.4
	Not Working	17	10.6
	Student	68	42.5
	Retired	4	2.5
Type of occupation	Self- Working	8	5.0
	Government sector	7	4.4
	Private sector	56	35.0
	Not related	89	55.6
Health status	Healthy	33	20.6
	Moderate	6	3.8
	Unhealthy	0	0
	Very bad	38	23.8
Last time visited doctor	A month ago	38	23.8
	2-3 months ago	54	33.8
	4-6 month ago	28	16.3
	> 6 months ago	42	26.3

Particulars	Minimum	Maximum	Mean
Age (Years)	20	64	28.31
Family income (RM)	2000	10000	5159.38

A reliability test was conducted to assess various dimensions of patient satisfaction and perception of healthcare services. The Cronbach's alpha coefficients showed high internal consistency for all variables (refer to Table 3): Patient satisfaction ($\alpha = 0.92$), Relationship and interaction with healthcare professionals ($\alpha = 0.92$), Perception of healthcare professionals' skills ($\alpha = 0.91$), Evaluation of amenities, accessibility, and facilities ($\alpha = 0.94$), and Registration and administrative procedures ($\alpha = 0.92$). These results indicate robust reliability in the



measurement of these constructs. All coefficients are well above the acceptable threshold of 0.70, confirming the reliability of the survey instruments used in the study.

Table 3: Reliability Test

Variables	Initial items	No of deleted items	Cronbach's Alpha
Patient Satisfaction	0	0	0.92
Relationship and interaction with healthcare professionals	8	0	0.92
Perception of healthcare professionals' skills	6	0	0.91
Assessment of amenities, accessibility and facilities	5	0	0.94
Registration and administrative procedure	5	0	0.92

* Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlation analysis was conducted to investigate the relationships between patient satisfaction and various aspects of healthcare services. Strong positive correlations were found between patient satisfaction and each of the dimensions analysed: Relationship and interaction with healthcare professionals ($r = 0.805$, $p < 0.01$), perception of healthcare professionals' skills ($r = 0.842$, $p < 0.01$), evaluation of amenities, accessibility and facilities ($r = 0.773$, $p < 0.01$), and registration and administrative procedures ($r = 0.703$, $p < 0.01$). These results as portrayed in Table 4 indicate that a higher level of patient satisfaction is associated with a positive perception of all aspects of healthcare service delivery analysed in the study. The correlations are statistically significant at the 0.01 level, indicating strong and meaningful relationships between patient satisfaction and the quality of healthcare interactions and facilities.



Table 4: Pearson Correlation

Variables	Patient Satisfaction	Relationship and interaction	Healthcare professional skills	Amenities accessibility and facilities	Registration and administrative procedure
Patient satisfaction	1				
Relationship and interaction	0.805**	1			
Healthcare professional skills	0.842**	0.826**	1		
Amenities, accessibility and facilities	0.773**	0.747**	0.788**	1	
Registration and administrative procedure	0.703**	0.637**	0.719**	0.745**	1

A regression analysis was conducted to examine the predictors of patient satisfaction based on different variables related to healthcare services. The results as displayed in Table 5 showed that relationship and interaction with healthcare professionals ($\beta = 0.281$, $p < 0.01$), perception of healthcare professionals' skills ($\beta = 0.396$, $p < 0.01$), registration and administration process ($\beta = 0.117$, $p < 0.01$), and evaluation of amenities, accessibility, and facilities ($\beta = 0.164$, $p < 0.01$) were all significant predictors of patient satisfaction. The model showed considerable explanatory power with an R-squared of 0.769 and an adjusted R-squared of 0.763, meaning that approximately 76.3% of the variance in patient satisfaction can be explained by these variables. The F-change statistic was highly significant ($F = 129.058$, $p < 0.001$), confirming the overall significance of the regression model. The Durbin-Watson statistic was 1.823, indicating that there was no significant autocorrelation between the residuals. These results emphasise the importance of healthcare professional interactions, perceived skill, administrative efficiency, and facility quality on patient satisfaction.



Table 5: Regression variables on patient satisfaction

Variables	Patient Satisfaction
Relationship and interaction with healthcare professionals	0.281**
Perception of healthcare professional skills	0.396**
Registration and administrative procedure	0.117**
Assessment of the amenities, accessibility and facilities	0.164**
R Square	0.769
Adjusted R Square	0.763
F Change	129.058
Significant F Change	0.000
Durbin – Watson	1.823

Discussion

Based on the findings of the study, patients within the Klang Valley demonstrate varying levels of satisfaction across different dimensions of public healthcare services. Notably, there is a strong indication of satisfaction with aspects related to their interactions with healthcare professionals, perceptions of healthcare professionals' skills, and assessments of amenities, accessibility, and facilities. These dimensions emerged as significant factors contributing to overall patient satisfaction within the public healthcare system. Conversely, lower satisfaction levels were reported concerning registration and administrative procedures, suggesting areas where improvements could potentially enhance patient experiences.

The positive correlation identified between healthcare professionals' skills and patient satisfaction underscores the pivotal role of competent and knowledgeable staff in shaping positive healthcare experiences. This is parallel to the findings of previous scholars. For example, Cheng et al. (2003) found that interpersonal skills proved to be as impactful as, if not



more impactful than, clinical competence in influencing patient satisfaction. Furthermore, as mentioned by Tung and Chang (2009), healthcare professional skills inclusive of technical and interpersonal skills are the most critical attribute of primary care quality for both overall satisfaction and recommendation. With this similarity findings, it is relevantly significant with SERVQUAL model that identifies dimension of services quality such as assurances as perception of healthcare professionals skills and empathy that been discovered in this study shows relationship and interactions with healthcare personal, boost up patient satisfaction.

Patients expressed a preference for healthcare providers who demonstrate high levels of expertise and engage in effective communication. This finding underscores the importance of fostering cohesive teamwork among healthcare professionals to deliver integrated and patient-centered care. According to Manzoor et al. (2019), healthcare providers' communication skills play an important role in shaping patient satisfaction. Effective communication not only enhances patient satisfaction but also supports treatment adherence and overall patient well-being, as highlighted by respondents who valued clear explanations and the opportunity to engage with healthcare providers during their care experiences. This is supported by Cheng et al. (2003), in which they emphasized the importance of cohesive teamwork among healthcare professionals in delivering their services to patients.

Moreover, the study emphasizes the critical need for healthcare facilities to prioritize patient feedback and integrate it into continuous quality improvement initiatives which is related to Donabedian's Model of Healthcare Quality, that categorize healthcare quality into three domain, included facilities in which care is provided. Research by Manimay (2014) advocates for structured training programs aimed at enhancing interpersonal skills and communication across all hospital staff, thereby promoting a culture of responsiveness and patient-centered care. The study suggests that while healthcare professionals' competencies are crucial, enhancing administrative procedures could further boost patient satisfaction, reflecting both factual data and theoretical underpinnings in healthcare quality. Such initiatives are crucial for bolstering hospital reputations and cultivating patient trust, essential elements in maintaining high standards of service delivery. Additionally, the findings resonate with previous research highlighting the integral link between healthcare service quality and patient satisfaction, as evidenced by studies conducted by Shabbir et al. (2016) and Asif et al. (2019). These studies underscore the broader implications of service excellence in healthcare settings, affirming its role in fostering positive patient outcomes and reinforcing the importance of ongoing efforts to enhance service quality and patient satisfaction in public healthcare contexts.

Conclusion

The research findings provide compelling evidence on the factors influencing patient satisfaction within public healthcare settings. The analysis further explained the predictors of patient satisfaction, revealing that relationships and interactions with healthcare professionals, perceived professional skills, administrative processes, and facility evaluations significantly contributed to overall satisfaction levels. The model demonstrated a high explanatory power, with approximately 76.3% of the variance in patient satisfaction accounted for by these variables. This comprehensive understanding is crucial for healthcare administrators and policymakers aiming to enhance patient-centered care, as it highlights specific areas—such as improving communication between patients and healthcare professionals, enhancing the perceived competence of healthcare staff, streamlining administrative procedures, and optimizing facility amenities, that can directly impact patient satisfaction outcomes.



Moreover, the study's findings underscore the multidimensional nature of patient satisfaction in public healthcare settings, emphasizing the interconnectedness of interpersonal interactions, clinical competence, operational efficiency, and physical environment. Addressing these dimensions collectively can not only improve patient experiences but also contribute to broader goals of healthcare quality improvement and patient-centered care initiatives. Moving forward, interventions targeted at strengthening these identified predictors can lead to more positive healthcare experiences and better outcomes for patients within public healthcare systems.

Healthcare providers need to have information regarding patient satisfaction towards the services, facilities, and surroundings which enable them to provide good quality services for the public. Healthcare professionals require effective communication in delivering good service to patients. They also need to be equipped with professional skills to provide better quality services. Three factors have a significant relationship towards public healthcare services which are relationship and interaction with healthcare professionals, skills, and assessment of amenities, accessibility, and facilities. Furthermore, the better the services in public healthcare, the more satisfied the patients.

Amenities and facilities have to be well maintained in giving benefits to patients. The personnel should be well-trained to carefully interact with the patients. The admission and management system would also be simpler for patients, and less time-consuming. The hospital administration will concentrate on features such as courteous workers, reception counter requests handling, registration staff's cooperative conduct, and an effective complaint management program. All of these create respect towards the healthcare professionals which encourages them to provide the best services to their patients.

In conclusion, the research provides valuable insights into the factors influencing patient satisfaction in public healthcare, offering a foundation for targeted strategies to enhance service delivery and patient-centered care practices. By prioritizing the development of strong professional relationships, improving the perceived skills of healthcare providers, optimizing administrative processes, and upgrading facility amenities, healthcare providers and policymakers can foster environments where patient satisfaction and overall healthcare quality thrive.

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