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The Effect of Public Healthcare Service Quality on Residents' Satisfaction in the United Arab Emirates (UAE), the Case of Ajman Emirate

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Abstract

The quality of healthcare services is becoming a major concern in all countries, through improving performance to maximize the population health, effectively and efficiently, by doing the right thing, at the right time, in the right way, for the right person and having the best possible results, through well-managed hospitals and clinics. The purpose of this paper is to identify and measure Ajman residents' satisfaction on healthcare service, using data of a sample of 1035 households, randomly selected from a total of 95,531 households, who were permanently residing in the Emirate of Ajman and having prior experience in availing any healthcare service. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22 and AMOS version 22. Structural Equation Modeling (SEM) analysis showed an acceptable model fit used to measure residents' satisfaction. Findings showed that in the government sector only reliability and empathy correlated positively with healthcare service quality, which also had a strong, positive correlation with residents' satisfaction, while tangible, assurance and responsiveness were not sufficiently correlated to healthcare service quality. On the other hand, for private sector, except for responsiveness and tangible dimensions, reliability, assurance, and empathy correlated positively with healthcare service quality, which also had a strong, positive correlation with residents' satisfaction. This study used healthcare service quality dimensions, namely, tangible, reliability, responsiveness, assurance, and empathy, to determine the residents' satisfaction within the public hospitals and to provide an empirical contribution to understanding the factors associated with public satisfaction and healthcare systems. According to the survey results, Ajman residents were satisfied 82% on Quality Dimension, 77% on Empathy Dimension, 80% on both Assurance and responsiveness Dimensions, 89% on Reliability Dimension and 88% on Tangible Dimension. Moreover, Statistical analysis revealed that, each of Tan-

gible Dimension, Healthcare Service Quality Dimension and Empathy Dimension, is positively correlated with Healthcare Service Quality. Likewise, Healthcare Service Quality, is also positively correlated with residents' satisfaction. But Reliability, Responsiveness, and Assurance Dimensions, are not positively correlated with Healthcare Service Quality.

Keywords

UAE, Ajman Emirate, Healthcare Services, Quality, Residents' Satisfaction, Dimensions

1. Introduction

The performance of a country healthcare system is a major concern in all countries. Numerous reforms were introduced in the health sector with the explicit aim of improving performance. The main goal of these efforts is mainly to maximize the population health effectively and efficiently. The importance of improving a country's healthcare quality is emphasized by OECD statement that: "well-managed hospitals and clinics, skilled health workers, and efficient drug procurement channels are vital if countries are to make real strides in improving the health of their populations".

As a result, the healthcare sector represents one of the largest sectors in the world economy. Global healthcare spending is projected to increase at an annual rate of 5.4% in 2018-2022, a considerable rise from 2.9% in 2013-2017 [1]. A review of the healthcare sector in many countries suggests that these large recurrent expenditures on hospitals involve a great waste of resources because of the technical and managerial inefficiency within hospitals [2].

Healthcare sector has gained attention from researchers over the past years, whether it's private or government sector seeking solutions to existing problems or aiming for modernization. As the population grows the need changes as well in volume, facilities, expertise, and supplies. The World Health Organization (2019) has defined quality of care, in 2019, as "the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centered."

Ajman's Healthcare System is an integral part of UAE system, which is regulated at both Federal and Emirate level. Several health ministries and authorities administer the public healthcare services such as Ministry of Health and Prevention, Abu Dhabi Health Authority, and the Dubai Health Authority. Currently, the UAE Government is focusing on the modernization and reform of health care sector enhancing the service through public-private partnership.

According to the study conducted by the US-UAE Business Council, the country's health sector has dramatically expanded over the past decades; from seven hospitals and 12 health centers in 1971 to 126 public and private hospitals with a

combined bed capacity of 12,000 according to the latest statistics data provided by the statistics authority in the UAE for 2015. With the growing size of the population, it is the desire of the nation to become a "regional medical tourism hub". The healthcare sector in the Emirate of Ajman has 3445 healthcare practitioner and has 4 government and 2 private hospitals with complete facilities with combined bed capacity of 404. Aside from these, there are 181 clinics both for adult and infant including general dental clinics, and few pharmacies.

2. General Outlook

2.1. Statement of the Problem

Significant improvements on healthcare services over the past years were observed through immunization that prevented outbreaks of communicable diseases that resulted to prolong life. Governments from different countries are exhausting their resources to provide a better well-being for their residents in terms of healthcare services. In the Arab culture, citizens' expectations from governments regarding provision of quality public services are rising. The primary responsibility of governments is to deliver essential community services such as public health, education, police, ambulance, and utilities. Under the federal and emirate-level regulatory authorities, the healthcare provision both for government and private healthcare sector were observed. Ensuring that laws and regulations were carefully followed by health care providers, including licenses and control of drugs and medical devices nationwide. The Ministry of Health and Prevention (MOHAP) oversees the implementation of provision of healthcare for all UAE citizens and residents. It works in two ways, MOHAP provides healthcare services and monitors the implementation of healthcare regulatory in northern emirates. For emirates like Abu Dhabi and Dubai, healthcare system was governed by their own health authorities namely Abu Dhabi Department of Health and Dubai Health Authority respectively. These health authorities strategize, monitor, and analyze both the health status and healthcare system performance of their respective emirate. In the case of Ajman, it is part of the northern emirates which are under the regulations of Ministry of Health and Prevention.

Countrywide the government has its vision to support the growing needs in the healthcare sector. Usually, services are provided in the public sector when they cannot be done adequately in the private sector. Local government of the emirate being the primary entity, provides the basic services that community needs in the absence of private providers, or in some cases costs are subsidized to provide the service at affordable cost to its community. Under the Executive Regulation of the Federal Law No. 6 of 2007 article 4, health and life insurance are implemented in the UAE. This means that not all cost is to be covered by the government or by individual unless the patient is not having the insurance, or the insurance plan does not cover such health cases.

The health care system in general has the influence on how health services are provided to the community and the importance of measuring the residents' sa-

tisfaction on availed healthcare services will determine the level of performance of the emirate. Healthcare service quality may affect the decision of the residents to avail the healthcare services within the Emirate of Ajman. If the quality they received on availed healthcare services are not aligned with what they desire to receive, then it can be a reason for them to find alternative service providers. In a fast-phasing environment with competitive healthcare services, residents have plethora of healthcare services to choose from among them in other emirates. Healthcare providers can no longer disregard the level of quality of the services they provide.

The factors that influence the quality of healthcare services provided to residents affect the residents' satisfaction. Although there are efforts to improve the current healthcare services, however ignoring other factors such as responsiveness to emergency cases, empathy in understanding the needs of the residents as customers or patients, assuring the residents that the healthcare practitioners have adequate knowledge and competence, reliability and quality of the healthcare services provided, and availability of the needed supplies and equipment to support the healthcare services may affect the healthcare service industry in the long run.

The definitive goal of this study is to measure the residents' satisfaction in the area of healthcare services. The healthcare providers should understand the indicators important to its stakeholders especially the residents as customers or patients not to overlook the areas that need improvement. Therefore, it is important to learn more about service quality that pertains to healthcare services.

2.2. Research Objectives

The research objectives of this study are to:
- Determine factors that influence the healthcare service quality provided within Emirate of Ajman,
- Gain deep insight into the influence of factors identified in the study in accordance with residents' experience.
- Measure residents' satisfaction level on healthcare services.
- Determine the relationship between healthcare service quality and residents' satisfaction.

It is worth noting that this study was assigned to the Ajman Statistic and Competitiveness Center to avoid partiality and portray fairness to healthcare sector.

2.3. Research Questions

- What factors influence healthcare service quality in the Emirate of Ajman, United Arab Emirates?
- What is the relationship between healthcare service quality and residents' satisfaction?
- What is the residents' satisfaction level on availed healthcare services?

2.4. Research Hypotheses

Hypotheses were developed based on the study's purpose, research questions, and objectives, as depicted in Table 1 below.

2.5. Research Scope

The scope of this study is to measure residents' satisfaction on healthcare services, to identify and gain deep insight into evaluations regarding factors that influence healthcare quality service and residents' satisfaction and the relationship. A conceptual model that describes interactions among all factors was developed. This study targeted Ajman's residents who availed healthcare services. Based on the statistical poll made available by Ajman Census in 2017, exactly 95,531 households were situated in the Emirate of Ajman. The study targeted 855 combined households in Ajman city, Manama, and Masfout areas.

Table 1. Ajman research questions, research objectives, and research hypotheses.

Research Question	Research Objectives	Research Hypotheses
What factors influence healthcare service quality in the Emirate of Ajman?	To determine the factors that influence the healthcare service quality provided within the Emirate of Ajman.	H1: Tangibles correlate positively with healthcare service quality. H2: Reliability correlates positively with healthcare service quality. H3: Responsiveness correlates positively with healthcare service quality. H4: Assurance correlates positively with healthcare service quality. H5: Empathy correlates positively with healthcare service quality.
What is the relationship between healthcare service quality and residents' satisfaction?	To get a deep insight into the influence of factors that have been identified in the study in accordance with residents' perception. To determine the relationship among the quality of healthcare service and the residents' satisfaction	H6: Healthcare service quality correlates positively with Residents' satisfaction.
What is the residents' satisfaction level on availed healthcare services?	To determine residents' level of satisfaction on availed healthcare services	

2.6. Significance of the Study

Aside from adopting standard scientific design and implementation procedures, the significance of this study is that:

1) It established a baseline for satisfaction studies and documentation for future reference and documenting change.

2) The design adopted the comprehensive approach, where the household was the primary unit for data collection on satisfaction with regard to several services provided in the Emirate of Ajman. Where households reported using more than one service can be linked such that level of satisfaction with regard to clusters of services can be analyzed. Despite that, this approach incurs multiplied efforts of design, implementation and quality control measures. The value added through linking multiple services by far exceeds the vertical approach through dealing with each type of services as standing alone.

3) It enables concerned decision makers to identify priority areas for improvement using residents' perspective and focus all efforts on enhanced healthcare in the Emirate of Ajman.

4) It provides a deep understanding of healthcare various factors influencing service delivery quality and its impact on residents' satisfaction.

5) It provides a technological foundation to develop an improved and efficient healthcare services that could aid Ajman residents to a healthier living.

6) It provides insights about technology role in supporting the changing needs of healthcare sector, leading to a progressive economy.

The UAE has a highly developed health infrastructure and the standard of healthcare is high. In 2018, the UAE was ranked one of the Top 10 most efficient healthcare systems in the world. Medical facilities are modern and easily accessible for both locals and expats alike. Both public and private hospitals offer premium healthcare. However, many expats prefer private care, where English is commonly spoken and most of the medical staff are foreign doctors or foreign-trained.

The UAE is renowned for its quality healthcare facilities, which have led to a rise in medical tourism over the past decade. Healthcare is so prevalent, that there are an estimated 181 doctors per 100,000 residents.

2.7. Research Problem

UAE healthcare sector has dramatically expanded over the past four decades; from seven hospitals and twelve health centers in 1971 to 126 public and private hospitals with a combined bed capacity of 12,000. According to the World Health Organization's 2000 ranking of the world's health systems of 191 countries, United Arab Emirates surpassed the healthcare system of 164 countries to rank itself on the 27th place. Despite this impressive performance, the UAE ranks third in comparison to other Gulf countries such as Oman (ranked 8th) and Saudi Arabia (ranked 26th). However, on the recent healthcare efficiency index published by [3]. UAE was listed as one of the top ten countries (Number 10) with

life expectancy of 77.1 years.

With the country's growing population and its desire to be the regional medical tourism hub, the significance of improving the healthcare system is definitely important. Apart from that, the UAE needs to improve its healthcare efficiencies considering that the global healthcare expenditures continue to escalate, highlighting the need to reduce costs correspondingly. Based on healthcare spending would continue to rise driven by the shared factors of aging and growing populations, developing market expansion, clinical and technology advances, and rising labor costs. In addition, the trend toward universal healthcare is expected to continue, with more countries expanding or deepening their public healthcare systems to reduce out-of-pocket expenses. Private insurers, meanwhile, are looking to offset decreasing policyholder numbers with claims reduction programs.

Hence, healthcare institutions have great responsibility to provide high quality services to a country's citizens. Having a strong healthcare system in place will enable healthcare providers to deliver better quality and value to patients [4]. Consequently, patients' or the publics' evaluation of healthcare quality is important for making critical decisions about healthcare services and for determining and improving weaker aspects of healthcare delivery systems. The quality of care and patient satisfaction will improve with continuous monitoring of patients' perceptions and improvements on the basis of public feedback. It is argued that the healthcare satisfaction is an important service quality indicator and a quality component in developing countries. Success of any country depends on its people if they were healthy then they will be active and can do better for their country by actively participating in their work, but if they were not healthy, they cannot actively participate in their work, so it is very important to upgrade healthcare services and improve their service quality in order to satisfy patients.

Previous researchers have also put forth that "public satisfaction is closely linked to countrys' economic stability and residents' general feeling of well-being" [5]. The surveys in health services concerning health satisfaction are carried out to evaluate the patients' satisfaction, to learn patients' expectations, their suggestions and feedbacks, make the quality improvement constantly in all service periods and to search the effects of socio-demographic and treatment periods on patients' satisfaction [6]. Therefore, it is important that public or patients' satisfaction should be measured constantly to assess the areas that affect service care quality, determine which items should be prioritized and which require alteration in the service based on their responses.

Based on the current context, the study aims to determine the factors that influence the healthcare service quality in the United Arab Emirates, measure the residents' satisfaction level on healthcare services and determine the relationship between healthcare service quality and residents' satisfaction. Following the practice of previous scholars on public efficiency studies in regional government, this study focuses on the public healthcare services operated in the Emirate of Ajman, one of the biggest UAE healthcare services in terms of population attended

[7]. The paper has the following structure: The section following the research problem revises the literature about the definition of quality and factors affecting healthcare quality. The section thereafter briefly describes public satisfaction and the relationship of healthcare quality and satisfaction. Subsequent two sections contain the methodology and the results, respectively. In the last section, the main conclusions of the study are drawn.

3. Services' Quality

3.1. Definition of Service Quality

In today's complex and global competitive business environments, quality is one of the most important sources of competitive advantage for organizations seeking to serve and attract primary customers [8]. Many organizations now recognize the importance of systematic processes to manage quality in order to gain and maintain a competitive position [9]. The American National Standards Institute and American Society Quality (ANSIASQ) defined quality as "the totality of features and characteristics of a care or service that bears on its ability to satisfy given needs".

However, quality is dependent on the service receiver. Hence, service quality is the outcome of an interactive process between the service provider and the service receiver. It has been described as a form of attitude, which is related, but not equivalent to, satisfaction that results from the comparison of expectations with performance [10]. The interactive features of service quality are thus crucial to the ultimate outcome. If performance meets or exceeds expectations, then the perceived service quality is satisfactory [11].

This proposition leads to another argument that service quality is the difference between predicted, or expected, service (customer expectations) and perceived service (customer perceptions. [12] described expectations as the wants of consumers and what they feel a service provider should offer; perceptions refer to consumers' evaluations of the service provider [13]. Listening to the voice of the customer is critical for understanding expectations and perceptions and is the starting point for planning and/or adapting services [14].

3.2. Healthcare Service Quality

According to the World Health Organization, the goals for healthcare systems are good health, responsiveness to the expectations of the population and fair financial contribution. As a provider of healthcare, hospitals must ensure qualified, efficient, acceptable, and equal service for their consumers. In a competitive environment, patient perception of healthcare service quality is the essential factor when choosing a hospital. Because of increasing living standards and higher expectations, healthcare services must provide continually higher standards of medical care for their consumers.

In the healthcare sector, quality is the art of doing the right thing, at the right time, in the right way, for the right person and having the best possible results

[15]. The importance of services and their relation to health, quality assurance and quality promotion have been receiving more attention from taxpayers, who have increasing expectations of hospitals and other healthcare providers. The quality of healthcare services has become an essential issue in marketing healthcare services, which has gained greater significance in the current competitive healthcare environment. The optimal degree of health outcomes through delivery of effective, efficient, and cost-benefit professional health services to people and communities, can be defined as the quality of healthcare [16]. The evaluation of healthcare service is essential to the assessment and quality improvement of medical services.

[17] defined healthcare quality as "application of medical science and technology in a manner that maximizes its benefit to health without correspondingly increasing risk". Meanwhile, healthcare quality was defined as "consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patients' needs and satisfies providers". Summarizing the thoughts of the past researchers, healthcare service quality is about saving life without complication through effective and efficient provision of service.

3.3. Customer Satisfaction

Consumer satisfaction is of fundamental importance as a measure of quality of care, because it gives information on the provider's success at meeting the values and expectations of the client who is the ultimate authority. Therefore, the measurement of healthcare satisfaction is an important tool for research, administration, and planning in healthcare. Additionally, patient satisfaction is essential for ensuring continuity of care, better patient compliance with treatment and favorable clinical outcomes [18]. Consumer perception is the main indicator of quality healthcare service. Patients have numerous hospital choices. If they are not satisfied with one, they can readily choose another provider. Thus, there is strong competition among hospitals.

The quality and adequacy of healthcare services can be measured based on views and satisfaction of patients and their relatives) [19]. Patient satisfaction is the most important indicator of quality of care and is considered an outcome of healthcare services [20]. Patient satisfaction measurement provided crucial information on performance thus contributing to total quality management [21].

3.4. Relationship between Healthcare Service Quality and Customer Satisfaction

Most researchers agree that there is a relationship between consumer perception of service quality and their satisfaction [22]. High service quality does not guarantee high satisfaction or positive behavior. [23] reported that sound physical environments or sufficient equipment, for example, can match customers' expectations but cannot offset dissatisfaction with long waiting times. Patients may be satisfied with core services (e.g., doctors' diagnoses), but the poor quality of

supplemental services (e.g., inconvenience and slow processing speed at the payment counter or pharmacy) can give patients a bad impression. The relationship between service quality and satisfaction is nonlinear, and so moderating effects need to be considered.

High levels of consumer-perceived quality are positively related to patient satisfaction, intention to use a service again, compliance with advice and treatment regimes, choice of provider or plan, and malpractice lawsuits, better health outcomes, higher financial performance, lower employee turnover, strengthened competitive position, enhanced placebo effect and better risk management [24].

Based on all the arguments, the following hypotheses are proposed:

Hypothesis 1: Tangibles correlates positively with healthcare service quality.

Hypothesis 2: Reliability correlates positively with healthcare service quality.

Hypothesis 3: Responsiveness correlates positively with healthcare service quality.

Hypothesis 4: Assurance correlates positively with healthcare service quality.

Hypothesis 5: Empathy correlates positively with healthcare service quality.

Hypothesis 6: Healthcare service quality correlates positively with Residents' satisfaction.

4. Research Methodology

The survey was based on a purposive sampling, done in a natural environment and a non-contrived setting. The purpose of this study was to find out satisfaction level about health sector located in the emirate of Ajman. The dependent variable refers patient satisfaction in health sector and the independent variables comprise reliability, responsiveness, assurance, empathy, and tangibles.

The primary data were collected by a field survey, using a questionnaire, containing five parts. Initially, the questionnaire precedes with pre-screening questions which determine the appropriate target respondents for the study. The first part establishes whether the respondent has used any healthcare services in the past 12 months in Ajman. The second part comprises questions seeking information of the respondents' demographic background. The third part contains information determining the respondents' knowledge of the healthcare services offered in the Emirate of Ajman. The fourth part contains specific questions asking residents about their satisfaction of the services rendered by the public healthcare. Finally, the last part concludes by asking the respondents' suggestions and improvements of Ajman's healthcare services.

The population for this study is Ajman's 95,531 households residing in Ajman City, Masfout and Manama regions. The target respondents were those 18 years of age and above, who has prior experience of using the healthcare service. The respondents were selected randomly comprising groups of different social class, occupation, income strata and geographic proximity to the healthcare services.

The study was conducted face-to-face via CAPI (Computer Assisted Personal Interview) through a structured questionnaire. Which is accessed and stored at

KIG-SMS (Kafaat International Group Study Management System) device which are connected remotely and uniquely capturing the respondents' location within the targeted areas of the Emirate of Ajman.

5. Analysis

Data were analyzed using SPSS version 22 and AMOS version 22. SPSS was used to analyze respondents' profiles and data purification process such as reliability, validity tests and factor analysis. AMOS was used to conduct SEM analysis. Healthcare service quality-resident satisfaction latent construct was measured using tangibles, reliability, responsiveness, assurance, empathy, and satisfaction. The result demonstrated that the model fits which is illustrated in **Figure 1**. The total number of households identified and visited in the study were 3804 households, out of which only 1457 households allowed the enumerators to explain their purpose. From the 1457 households, 433 declined to be interviewed. Out of the remaining 1024 households, 80 households failed the eligibility screening test. This leaves the final number of 944 households interviewed. After data cleansing process, 43 cases were dropped due to large number of missing values. Hence, the final number of completed and verified interviews was 901 households representing a response rate of 24%. The breakdown of the samples are as follows: Ajman City accounted for 92% of the sample, Manama had 3% and Masfout had 5%. This corresponds to the Emirate of Ajman population distribution.
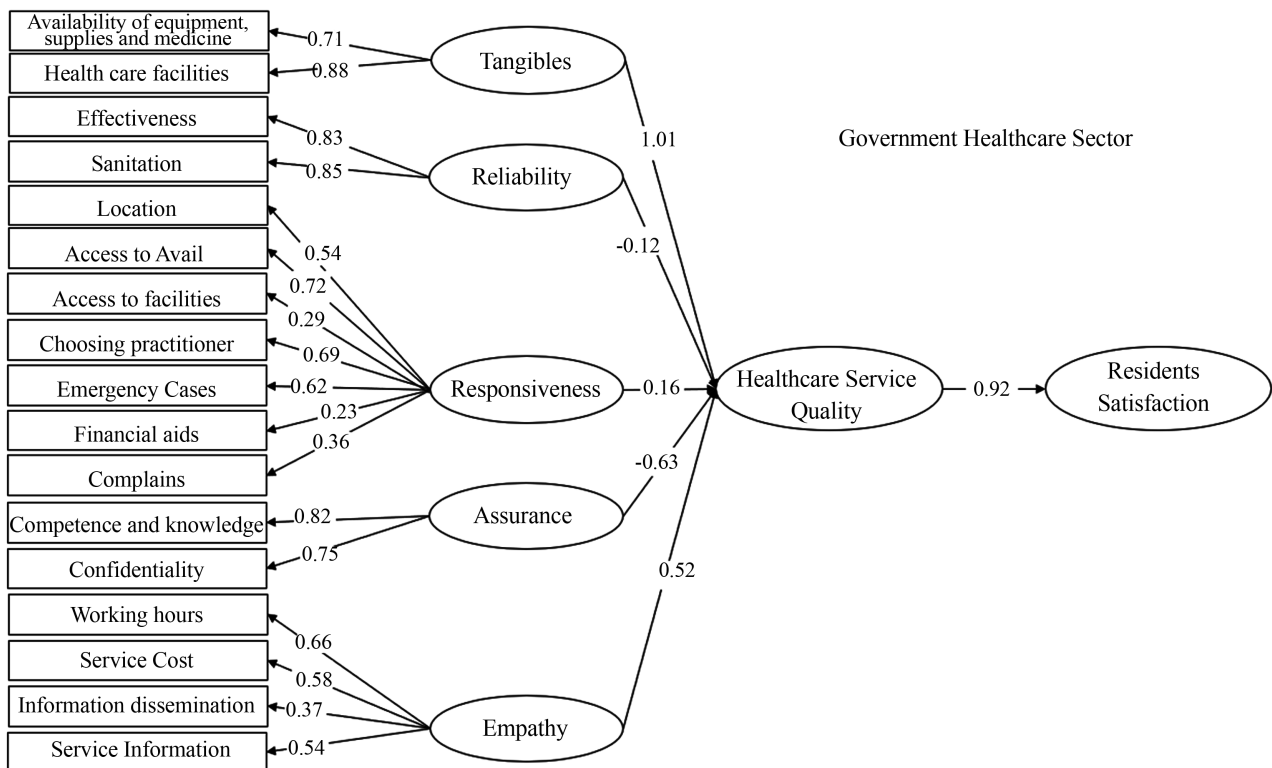

Figure 1. Path diagram for ajman healthcare service quality and residents satisfaction.

6. Findings of the Demographic Characteristics of Survey Respondents

The sample was somewhat equally representable in terms of gender in all the three cities. Age distribution indicates that about 21% of respondents were of the age group 18 - 29 compared to about 43% of the age 30 - 39, 32% were of age 40 - 59, while less than 5% were 60 years or more. In terms of education level, high school were about one-third of the respondents and about 4 in ten were with bachelor's degree. Thirty-three persons had a master's degree (about 4%) and 3 persons with a Ph.D. In general, the distribution implies representation of all educational levels in the study sample. Finally, five to ten thousand dirham per month was the modal income category that accounted for 32% of the sample followed by 21% for the category 10 to 15 thousand dirhams. This is followed by 10% to 11% for the income category of more than 25 thousand dirhams per month.

In Manama, the distribution is concentrated more in lower income categories with about 4 in ten have less than 5 thousand per month and no one has income of more than 25 thousand. In Masfout, the distribution shows no clear trend. However, about 35 percent have an income of more than 25,000 thousand per month. Table 2 shows the demographic characteristics of the survey respondents.

Finally, after all the data purification process was done, the constructs were analyzed rigorously for SEM model measurement and validation. The result in Table 3 demonstrates the overall fit analysis and validity of the proposed relationship.

Subsequently, the final model validation of the proposed relationship is illustrated in Figure 1.

The significance results of the of the respective relationship of the proposed model is highlighted in Table 4.

7. Conclusions

The findings of the study depicted that the service quality of the public healthcare plays pivotal roles in determining residents' satisfaction. Our study confirms that perceptions of services matter, in line with the results of prior studies [25]. This has improved on those studies by including a thorough list of all the healthcare service dimensions across both primary care and hospitals. The healthcare service quality dimensions present relevant guidelines for hospital managers to help them understand what patients take into consideration when evaluating the quality delivered by service providers. The various dimensions of quality service used in this study can help to improve hospital service quality as perceived by patients and the residents in general.

In this study, the dimensions of healthcare service quality were used to determine the residents' satisfaction within the public hospitals in the Emirate of Ajman. We have examined how tangible, reliability, responsiveness, assurance, and

empathy which represents the overall healthcare service quality influence on the residents' satisfaction with quality of hospital services. Table 5 illustrates the overall hypotheses testing of the study.

Table 2. Demographic characteristics of survey respondents.

Demographic Characteristics		Ajman City		Manama		Masfout		Emirate of Ajman	
		n = 825	91.56%	n = 30	3.33%	n = 46	5.11%	n = 901	100%
Nationality	UAE national	379	45.90%	14	46.70%	31	67.40%	424	47.10%
	Expatriates	446	54.10%	16	53.30%	15	32.60%	477	52.90%
Gender	Male	398	48.20%	20	66.70%	42	91.30%	460	51.10%
	Female	427	51.80%	10	33.30%	4	8.70%	441	48.90%
Age	18 - 29	170	20.60%	5	16.70%	12	26.10%	187	20.80%
	30 - 39	358	43.40%	10	33.30%	17	37.00%	385	42.70%
	40 - 59	259	31.40%	14	46.70%	16	34.80%	289	32.10%
	Above 60	38	4.60%	1	3.30%	1	2.20%	40	4.40%
Education	Illiterate	17	2.10%	2	6.70%	0	0.00%	19	2.10%
	Secondary	102	12.40%	3	10.00%	5	10.90%	110	12.20%
	Highschool	239	29.00%	14	46.70%	24	52.20%	277	30.70%
	Diploma	70	8.50%	1	3.30%	2	4.30%	73	8.10%
	Bachelor	361	43.80%	10	33.30%	15	32.60%	386	42.80%
	Master	33	4.00%	0	0.00%	0	0.00%	33	3.70%
	Ph. D	3	0.40%	0	0.00%	0	0.00%	3	0.30%
Income	<5000	117	14.20%	13	43.30%	5	10.90%	135	15.00%
	5000 - 9999	272	33.00%	8	26.70%	8	17.40%	288	32.00%
	10,000 - 14,999	175	21.20%	5	16.70%	6	13.00%	186	20.60%
	15,000 - 19,999	96	11.60%	1	3.30%	3	6.50%	100	11.10%
	20,000 - 24,999	81	9.80%	3	10.00%	8	17.40%	92	10.20%
	>25,000	84	10.20%	0	0.00%	16	34.80%	100	11.10%

Table 3. Model fit indicators.

Model	RMR	GFI	AGFI	PGFI
	0.066	0.873	0.826	0.639
Ajman Public Healthcare Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2
	0.899	0.874	0.913	0.891

Table 4. Assessment structure model of Ajman healthcare service quality.

Latent Factors Relationship			Estimate	Standardized Loadings	S.E.	C.R.
Tangible	→	Healthcare Service Quality	1.161	1.007***	0.338	3.439
Reliability	→	Healthcare Service Quality	−0.131	−0.117	0.412	−0.318
Responsiveness	→	Healthcare Service Quality	0.367	0.161	0.452	0.811
Assurance	→	Healthcare Service Quality	−0.993	−0.632	0.844	−1.177
Empathy	→	Healthcare Service Quality	0.783	0.516**	0.291	2.693
Healthcare Service Quality	→	Residents Satisfaction	0.927	0.915***	0.033	28.488

**, ***Significant at alpha 0.01, 0.001 respectively. S.E: Standard Error, C.R: Critical Ratio.

Table 5. Healthcare service quality and residents satisfaction hypothesis testing results.

Research Question	Research Hypotheses	Results
What factors influence healthcare service quality in the Emirate of Ajman?	H1: Tangibles correlates positively with healthcare service quality.	Supported
	H2: Reliability correlates positively with healthcare service quality.	Not Supported
	H3: Responsiveness correlates positively with healthcare service quality.	Not Supported
	H4: Assurance correlates positively with healthcare service quality.	Not Supported
	H5: Empathy correlates positively with healthcare service quality.	Supported
What is the relationship between healthcare service quality and residents' satisfaction?	H6: Healthcare service quality correlates positively with Residents satisfaction.	Supported

This paper concludes that the findings from this survey are relevant and generalizable to the UAE healthcare services. Tucker and Adams (2001), in their study on patient satisfaction in public hospitals, determined that provider performance together with access explained almost 74% of variance in satisfaction. It was found that service quality had positive relationship with customer satisfaction. The richness of this study data set allows simultaneous testing of all the major explanations of public satisfaction with healthcare systems. Unlike the surveys on which most previous studies of healthcare system satisfaction have been based, our survey was explicitly designed to highlight all the healthcare services

offered and probe their satisfaction on the respective services.

This article makes an empirical contribution to understanding the factors associated with public satisfaction with healthcare systems. Public satisfaction is important because members of the public are beneficiaries and actors in health systems, and their opinions are important in shaping health policies, providing feedback on the quality and responsiveness of services, and in bringing legitimacy and accountability to the policymaking process (Bhatia *et al.* 2009).

It is believed the findings of the study could become a baseline for service quality level in the healthcare sector in the UAE and provides critical information to the government in identifying the priority areas for improvement using residents' perspective and focus all efforts towards enhanced healthcare in the Emirate of Ajman specifically and UAE in general.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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