

THE ASSESSMENT OF THE IMPACT OF QUALITY ON THE SAUDI HEALTH CARE SYSTEM IN PRIMARY HEALTH CARE CENTERS IN MAKKAH

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Abstract:

Background:

Primary health care, the basis of universal health coverage, needs to be assessed on its performance through Saudi health care quality system and future opportunities to serve the Saudi Arabian population increase the chance of desired health outcomes. Saudi Arabia has invested heavily in its health care system by establishing health care infrastructures to improve health of the nation. However, it remains to be seen whether it is efficient and effective in providing health care services needed. In spite of substantial improvements in the Saudi Arabian health services sector in the past few decades, the country is facing a number of challenges in its primary health care system. These challenges include increased demand because of rapid population growth, high costs of health care services, inequitable access, concerns about the quality and safety of care, a growing burden of chronic diseases, a less than effective electronic health system, poor cooperation and coordination between other sectors of care, and a highly centralized structure.

Aim of the study: This study aims to determine the impact of quality on the Saudi Health care system in primary health care centers in Makkah on satisfaction of Saudi people.

Method: A cross-sectional study design. The current study was conducted male and female in primary health care centers in Makkah. The study randomly sampled. The total sample size will be (300) participated. female and male.

Results: Regarding Patient satisfaction about study results showed that the majority of participants were high satisfaction proportions (65.7%) while average satisfaction were (31%) While The Range (50 – 113) Mean +SD (89.913±11.636). Regarding Patients satisfaction about Patients satisfaction about social and behavioral characteristics results show that the majority of participants were high satisfaction proportions (64.3%) while average satisfaction were (33.3%) While the Range (28 – 56) Mean+SD(46.796±5.9636)

Conclusion: The Saudi Arabian health care system needs comprehensive reform with a focus on primary health care. There is substantial variation in the quality of Saudi primary care services. In order to improve quality, there is a need to improve the management and organization of primary care services. Professional development strategies are also needed to improve the knowledge and skills of staff.

Key words: Assessment, impact, quality, Saudi, primary, health care, centers

1. INTRODUCTION.

1.1 BACKGROUND

Patients' satisfaction has long been considered as an important component when measuring health outcome and quality of care in both developed and developing countries [1] and constitutes a significant indicator of the health care quality. [2] Literature showed that satisfied patients are more likely to develop a good relationship with the health system, leading to improve compliance, continuity of care and ultimately better health outcome. [3] PHC Patient' satisfaction represents a key marker for the quality of health care delivery and this internationally accepted factor needs to be studied repeatedly for smooth functioning of the health care systems. [4]

Health care quality is that the degree to that health care service for people and populations increase the chance of desired health outcomes [5]. Patients' satisfaction has long been considered as an important component when measuring health outcome and quality of care in both developed and developing countries. [6] The government has developed and implemented a number of initiatives which include the Strategic Plan of the Ministry of Health [7]

2010–2020 to effectively tackle these challenges [8]. These initiatives resulted in the replacement of seven ministers of health in almost two years, which indicates the serious administrative and practical difficulties in tackling these challenges in the health care system.[9]Describes the essential role of quality within the delivery of health care services. As nations arrange to achieve universal health coverage by 2030, there's a growing acknowledgement that optimum health care cannot be delivered by merely making certain existence of infrastructure, medical providers and health care suppliers. Improvement in health provision needs a deliberate concentrate on quality of health services, that involves providing effective, safe, people-centered care that's timely, equitable, integrated and economical. [10]Quality of care is that the degree to that health services for people and populations increase the probability of desired health outcomes and are in line with current professional information. [11]

Most review papers in Saudi Arabia have focused on hospital-based medical services with limited consideration of primary health care services, which are the first point of access to health care in the Saudi Arabian health care system. The primary health care sector provides essential health care services to Saudi Arabians and to expatriates working in the public sector [12]

No reform of the Saudi Arabian health care system can be complete without first considering the primary health care services at the heart of the health care system. [13]

Saudi health care system definition Health care in Saudi Arabia is classified as a national health care system during which the government provides health care services through variety of state agencies. Within the context of the state the role of the Saudi Arabia, there's a growing role and enlarged participation from the personal sector within the provision of health care services. [14]

The Kingdom of Saudi Arabia (KSA) is a high-income developing country with a landmass. It has experienced rapid urbanization. The vastness of the country impacts the accessibility, quality and equity of healthcare service delivery. Oil-derived wealth has funded free public sector services, including Saudi health care system reform [15]. Apart from private colleges and institutes, there are a total of 73 colleges for medicine, health and nursing as well as 4 health institutes in Saudi Arabia.[16]

1.2 Literature Review

Mohamed et al. (2015) reported The level of satisfaction with the services provided by PHC centers was high (81.7%). These findings are higher than satisfaction of care of patients in London, India, Kosovo and Iraq where satisfaction with health care were 61.3%, 66%, 73.5% and 50.9% respectively (24,25,26,27) This is also higher than the finding from Riyadh (64.2%) in Saudi Arabia.[14]

A comparison of the primary health care systems in Saudi Arabia and Cuba shows that health leaders and the government in Cuba saw primary health care as the cornerstone of successful health care together with a focus on the social determinants of health. Cuba's approach has contributed to making its primary health care among the best in the world [15]. Al-azmi et al (2006) reported study in Kuwait findings the patients' satisfaction was low. [16]

Shortage of health care professionals is a global concern (36). The Saudi Arabian health care system is not immune to this challenge, and most health care professionals in Saudi Arabia are expatriates [17]. In 2014, the primary health care workforce included 9304 physicians and dentists (3 per 10 000 inhabitants), 18 136 nurses (5.9 per 10 000 inhabitants), and 9690 allied health workers [18].

The health care workforce for primary health care services has increased with nurses outnumbering physicians and allied health workers between 2010 and 2014 [19–17].

Other studies conducted in Saudi Arabia. [20, 21] The study showed that the respondents who acquired primary education were more satisfied with the provide PHC services, followed by the intermediate education. [22]

These finding are in line with the most important factor that drives patients' satisfaction is the cleanliness, technical competencies of the staff of PHC centers and good handling. This is in line with the finding of Weber ES et al and Merkouris et al. [23, 24] the reasons behind high level of satisfaction were cleanliness, competence of the staff along with respect and good handling.

Also study to Stephen et al reported that males and females had the same level of satisfaction about the provided services. ([5,26] Although the female care providers were more dedicated to work than the male's counterpart. However, the high level of satisfaction among the males may be due to the fact that the work load and the staff turnover in the male side was less compared to the female side. [27]

1.2 RATIONALE

By conducting this study, it will help us to estimate the level of this problem in Makkah Al-Mukarramah, healthcare system in Saudi Arabia and principally focused on its level of development, structure, implementation of TQM and the future challenges since there is no studies conducted to evaluate this problem. In addition to that, The MOH has introduced many to its services, with substantial emphasis on PHC. the quality of the health care system will improve the healthcare organization's in Saudi Arabia in the light of vision 2030 assess role of the MOH over health services and Patient Satisfaction encouraging the private sector to take its position in providing health services, improving the quality of preventive, curative and rehabilitative care and distributing health care services equally to all regions.

1.3 Aim of the study:

To Assess the impact of the quality of primary health care centers in Saudi Arabia at Makkah.

1.4 Objectives:

This study presents an overview of quality of primary care in Saudi Arabia at Makkah and identifies factors impeding the achievement of quality.

2. Material and Method

Has be selected randomly sampled a varied sample of the participants. The questionnaire results have been collected in the period from 2019 the total has been (300) participates.

2.1 Study Design:

A cross-sectional study to determine the relationship between the quality Saudi health care system and the satisfaction of Saudi people.

2.2 Study Area:

Makkah is the holiest spot on Earth. It is the birthplace of the Prophet Mohammad and the principal place of the pilgrims to perform Umrah and Hajj. It is located in the western area in Kingdom of Saudi Arabia and called the Holy Capital. The present study has been conducted in primary health care centers in Makkah.

2.3 Study Sampling :

The current study has been conducted at Makkah the study randomly sampled. They has be collected from the Saudi healthcare center and more specifically in according to the inclusion, exclusion criteria shown, during the October to December, 2019

Inclusion criteria:

Age <30 ->50

Male and female.

Agree to participated

Exclusion criteria :

Primary healthcare centers not have quality system.

Primary healthcare centers refused to participate in the research.

2.4 Tool of Data Collection :

Self-report Questionnaire with health centers patient at the time of our team visits the centers.

A questionnaire has be developed by the researcher to collect the needed data. It included two parts :

Tool (I) Questionnaire the first part deals with demographic data such as. Gender, marital status, age .

The second part concerns with

Tool (II): the quality Saudi health care system has be assessed by a questionnaire that was previously determined to have good reliability examines how satisfied the Saudi People are with their public sector healthcare services.

3. Content Validity and reliability :

Tools has been submitted to: quality panel to test the content validity. Modification has been carried out according to the panel judgment on the clarity of sentences and appropriateness of content. A pilot study has be carried out on 10% of the total sample to check the clarity of items, determine the feasibility of the study and estimate the time of data collection and then modifications has be made according to pilot study results. Sample included in the pilot has be excluded from the study .

3.1 Field of Work :

- the Saudi health care system related information records of the list of Saudi health care centers has be identified by their record number and names.

- The researcher introduced himself to each staff in the centers

3.2 Ethical Considerations :

This study has been conducted under the approval from the administrator's in Saudi health care centers and more specifically at Makkah. A participant has been given explanations about the purpose of the study, Confidentiality of participants' information has been assured, and the data were accessed only by the investigators involved in the study.

3.3 Data Analysis:

Collected data has be coded and tabulated using a personal computer then has be statistical package for social science (SPSS) version 24 was used to analyse these data. Chi- square to compare level was considered at p value >0.5.

3.4 Budget

It was been self-funded.

4. Result

Table (1) distribution of Socio-demographic data in participants group.

	N	%
Age		
<30	69	23.00
30-45	81	27.00
45-50	90	30.00
>50	60	20.00
Gender		
Male	135	45.00
Female	165	55.00
Level of education		
Primary	45	15.00
Intermediate	66	22.00
Secondary	129	43.00
High education	60	20.00
Marital status		
Married	183	61.00
Not married	117	39.00
Economic level		
Low	75	25.00
Average	150	50.00
High	75	25.00

Regarding age, the majority of participant was age (45-50) year's (30.0%), while participant the age between (30-45) years were (27.0%). Regarding gender show the majority of our participant's female were (55.0 %) but the females were (41.4%). Regarding the majority of our participants were at secondary education were constitutes 43%). Regarding the marital status, the majority of participant married were (61.0%) while not married were (39%). Regarding the economic level, the majority of them had income average level were (50%) while low level was (25%).

Table (2) distribution of Patient Satisfaction about level of health care

Items	Patient satisfaction about level of health care			One sample T-test (test value=2.5)	
	Mean	SD	order	t	P-value
1 Doctors use computerized medical records	3.993	1.005	20	25.731	<0.001*
2 The center's working hours are appropriate	4.011	1.017	19	25.734	<0.001*
3 The ease of transferring the patient from the center to the hospital	4.055	0.846	13	31.836	<0.001*
4 The center calls me if I cannot attend the follow-up appointment	4.081	1.040	12	26.331	<0.001*

5	The center provides all necessary vaccinations	4.025	0.932	17	28.341	<0.001*
6	All my family members are provided with a medical examination	4.047	0.959	14	27.94	<0.001*
7	There is an appropriate number of employees to perform all appropriate tasks on each visit	4.085	0.965	11	28.449	<0.001*
8	On every visit to the center, the temperature, weight and blood pressure are measured	4.151	0.861	2	33.213	<0.001*
9	The center provides a health education service that allows me to understand the disease, its treatment and prevention	4.093	1.091	10	25.29	<0.001*
10	The required medicine can be obtained from the center's pharmacy	4.099	0.970	8	28.552	<0.001*
11	I can get the results of the laboratory analyzes at an appropriate time	4.139	0.696	3	40.788	<0.001*
12	I will be provided with information about the services available in the health center	4.125	0.914	5	30.794	<0.001*
13	I am confident that I can obtain the required primary health care services	4.117	0.985	7	28.434	<0.001*
14	Adequate / adequate care is provided to children	4.167	1.048	1	27.551	<0.001*
15	I am facing a problem in the language of communication with staff at the health center	4.097	0.824	9	33.569	<0.001*
16	My medical file is extracted on every visit	4.121	0.829	6	33.868	<0.001*
17	I have a bad previous experience	4.097	0.906	9	30.531	<0.001*
18	He had to wait too long to see a doctor	4.129	0.956	4	29.514	<0.001*
19	There are services that take into account people with special needs and the elderly	4.121	0.984	6	28.533	<0.001*
20	The dental clinic provides basic services. (Teeth cleaning, fillings, non-surgical dislocation, nerve removal, health education)	4.021	0.884	18	29.801	<0.001*
21	Pregnancy visits are regularly followed up by the pregnant clinic	4.041	0.810	15	32.952	<0.001*
22	Visits of patients with pressure, diabetes and asthma are monitored regularly	3.985	0.810	21	31.754	<0.001*
23	The center provides radiology services upon request by the doctor	4.033	0.837	16	31.723	<0.001*

Regarding the Patient Satisfaction about level of health care show that all items significant relation between the Patient satisfaction about level of health care were p-value <0.001 and mean respectively (3.993, 4.011, 4.055, 4.081, 4.025, 4.047, 4.085, 4.151, 4.093, 4.099, 4.139, 4.125, 4.117, 4.167, 4.097, 4.121, 4.097, 4.129, 4.121, 4.021, 4.041, 3.985, 4.033) and respectively T=25.731, 25.734, 31.836, 26.331, 28.341, 27.94, 28.449, 33.213, 25.29, 28.552, 40.788, 30.794, 28.434, 27.551, 33.569, 33.868, 30.531, 29.514, 28.533, 29.801, 32.952, 31.754, 31.723

Table (3) Distribution of the Patient Satisfaction about level of health care Quality of health care Information

Items		Patients satisfaction			One sample T-test (test value=2.5)	
		Mean	SD	order	t	P-value
1	What is your judgment on the quantity and quality of information that the doctor provided you with regard to the course of therapeutic analyze carried out?	3.843	0.938	12	24.799	<0.001*
2	What is your judgment about the availability of time for the doctor to hear you?	3.973	0.923	7	27.642	<0.001*
3	What is your judgment on the extent to which nurses have had time to hear you?	4.063	1.014	1	26.698	<0.001*
4	What is your judgment on the way doctors treat you during your visit to the center?	3.957	0.914	9	27.61	<0.001*
5	What is your judgment on the nurses' style towards you during your visit to the center?	3.917	0.865	11	28.374	<0.001*
6	Respecting rules and regulations such as (no smoking, calmness)?	3.985	0.852	5	30.189	<0.001*
7	What is your assessment of the extent to which doctors respect your customs, customs and traditions?	3.971	0.812	8	31.377	<0.001*
8	How would you rate nurses' observance of your customs, customs and traditions?	4.029	0.853	2	31.047	<0.001*
9	Have you noticed a quick response from doctors to answer your inquiries?	4.017	0.852	3	30.839	<0.001*
10	Have you noticed a rapid response from nurses to answer your inquiries?	4.003	0.929	4	28.022	<0.001*
11	Overall, are you satisfied with the level of care your doctor gave?	3.951	0.846	10	29.707	<0.001*
12	Overall, are you satisfied with the level of care the nurse provided?	3.979	0.814	6	31.471	<0.001*

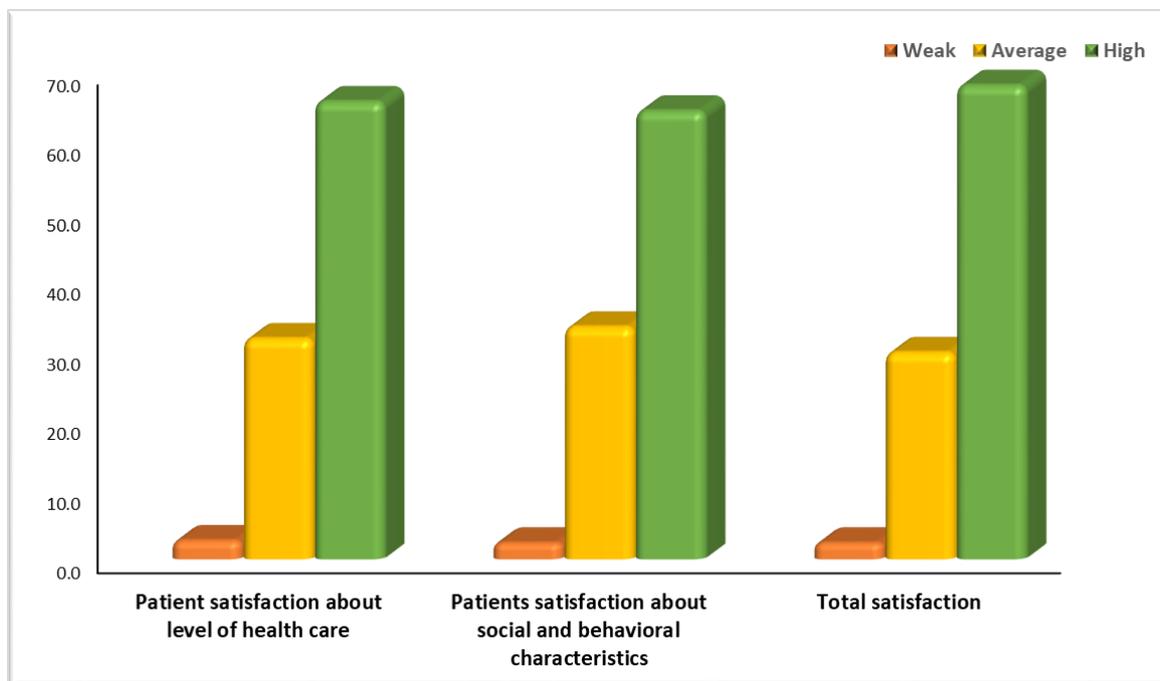
Regarding the your judgment on the quantity and quality of information that the doctor, the time for the doctor to hear you, the extent to which nurses have had time to hear you, the way doctors treat you during your visit to the center, the nurses' style towards you during your visit to the center patient satisfaction about level of health care's show that all items significant relation between the Patient satisfaction about level of health care were p-value <0.001 and SD respectively (0.938, 0.923, 1.014, 0.914, 0.865) and respectively T=(24.799, 27.642, 26.698, 27.61, 28.374).

Regarding the respecting rules and regulations, your assessment of the extent to which doctors respect your customs, customs and traditions, would you rate nurses' observance of your customs, customs and traditions, you noticed a quick response from doctors to answer your inquiries, noticed a rapid response from nurses to answer your inquiries, overall, are you satisfied with the level of care your doctor gave and overall, are you satisfied with the level of care the nurse provided show that all items significant relation between the Patient satisfaction about level of health care were p-value <0.001 and respectively T= (30.189, 31.377, 31.047, 30.839, 28.022, 29.707, 31.471)

Table (4) Distribution the Patients satisfaction in the following matters to improve patient care

	Patient satisfaction			Score	
		N	%	Range	Mean±SD
Patient satisfaction about level of health care	Weak	8	2.7	50-113	89.913±11.636
	Average	95	31.7		
	High	197	65.7		
Patients satisfaction about social and behavioral characteristics	Weak	7	2.3	28-59	46.796±5.9636
	Average	100	33.3		
	High	193	64.3		
Total satisfaction	Weak	7	2.3	78-168	136.71±16.636
	Average	89	29.7		
	High	204	68.0		

Regarding Patient satisfaction about study results showed that the majority of participants were high satisfaction proportions (65.7%) while average satisfaction were (31%) While The Range (50 – 113) Mean +SD (89.913±11.636). Regarding Patients satisfaction about Patients satisfaction about social and behavioral characteristics results show that the majority of participants were high satisfaction proportions (64.3%) while average satisfaction were (33.3%) While the Range (28 –56)Mean+SD(46.796±5.9636)

Figure (1) Distribution the Patients satisfaction in the following matters to improve patient care**Table (5) Distribution the Quality about Quality of health care and Facility to improve patient care**

Items	Quality	One sample T-test (test value=2.5)				
		Mean	SD	order	t	P-value
Quality of health care						
1	What is your judgment on the competencies and treatment skills of doctors?	3.809	1.079	4	21.013	<0.001*
2	What is your judgment on the competencies, skills and professional capabilities of the nursing?	3.971	1.011	1	25.201	<0.001*
Quality of the Facility						
1	What is your ruling on the cleanliness of the center in general?	3.897	0.966	8	25.048	<0.001*
2	What is your ruling on the cleanliness of the bathrooms?	4.013	0.856	7	30.614	<0.001*
3	What is your ruling on the cleanliness of the detection room?	4.037	0.673	4	39.557	<0.001*
4	How did you find the equipment in the waiting area for the auditors and other facilities?	4.097	1.179	2	23.461	<0.001*

Regarding the Quality about Quality of health care . Your judgment on the competencies and treatment skills of doctors, your judgment on the competencies, skills and professional capabilities of the nursing, show that a significant relation between the Quality about Quality of health care were p-value <0.001 and SD respectively (1.079, 1.011) and respectively T=(21.013, 25.201).Regarding the Quality about Quality of the Facility your ruling on the cleanliness of the center in general, your ruling on the cleanliness of the bathroom, your ruling on the cleanliness of the detection room, how did you find the equipment in the waiting area for the auditors and other facilities', show that a significant relation between the Quality about Quality of the facility were p-value <0.001 and SD respectively (0.966, 0.856, 0.673,1.179) and respectively T=(225.048,30.614, 39.557,

Table (6) Distribution the Quality about Quality of health care and Facility to improve patient care

	Quality		Score		
		N	%	Range	Mean±SD
Quality of health care	Weak	18	6.0	5-19.	14.656±1.9636
	Average	115	38.3		
	High	167	55.7		
Quality of the Facility	Weak	5	1.7	19-38.	31.043±3.8636
	Average	105	35.0		
	High	190	63.3		
Total quality	Weak	11	3.7	24-57.	45.700±5.7636
	Average	121	40.3		
	High	168	56.0		

Regarding Quality about Quality of health care study results showed that the majority of participants were high Quality proportions (55.7%) while average Quality were (38.3%) While The Range (5– 19) Mean +SD (14.656±1.9636). Regarding Quality about Quality of the Facility results show that the majority of participants were high proportions (63.3%) while average satisfaction were (35.0%) While the Range (19–38) Mean+SD(31.043±3.8636), while Total quality results show that the majority of participants were high (56.0%), While the Range (24–57) Mean+ SD(31.043±3.8636)

Figure (2) Distribution the Quality about Quality of health care and Facility to improve patient care

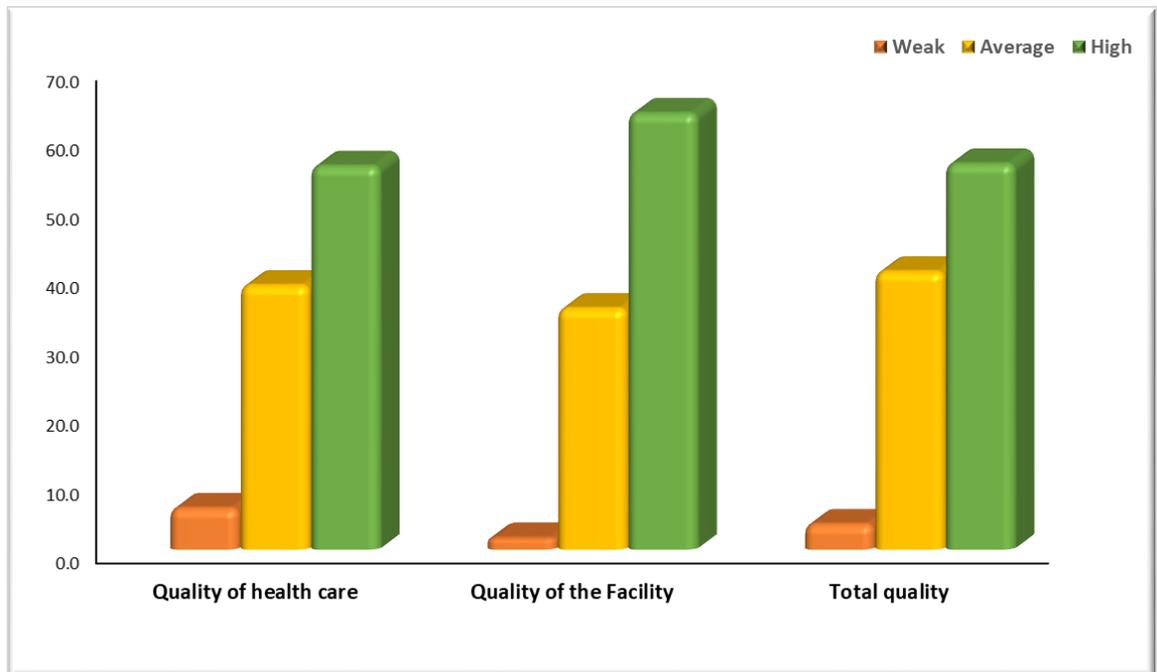
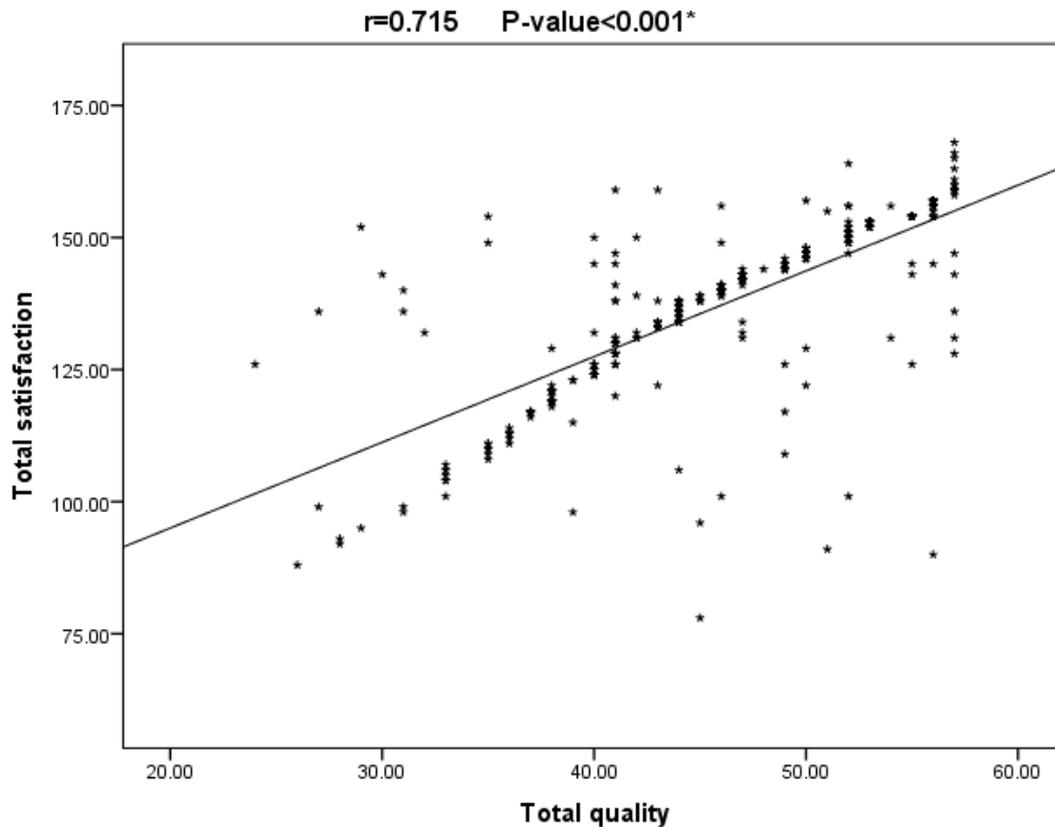


Figure (3) Correlation between the total Quality of health care and total satisfaction



Table

show that is a significant positive correlation between total satisfaction knowledge and total quality were $r=0.715$ and $p\text{-value}=0.001$

Discussion.

The primary care program in Saudi Arabia is a pioneering program that has achieved considerable success within a few years of its establishment. This success is reflected in good access to and effectiveness of some traditional primary care services, including Patient satisfaction about level of health care, Quality of health care and facility and Patients satisfaction about social and behavioral characteristics. [27] However, the results of this review point to substantial variations in quality of care, the majority of participants were in high satisfaction proportions for other aspects of care, mainly management. In Saudi Arabia, there have been several attempts to promote evidence-based practice in primary care. However, these efforts have yet to achieve their potential due in part to poor dissemination of guidelines and poor professional development strategies. In some studies, doctors reported never having had any educational leave, and most did not have access to the internet. There is an increased belief that implementation of evidence-based clinical guidelines in primary care will contribute to improvement [28]

The current study aimed to the impact of quality on the Saudi Health care system in primary health care centers in Makkah at Saudi Arabia. The level of patient Satisfaction about level of health care was high in % of agreement. These findings are higher than satisfaction of care of patients between the respectively. This is also higher than the finding from Riyadh (64.2%) in Saudi Arabia. [29] The patients' satisfaction in this study was higher than findings from Kuwait. [30] included questions on the Information regarding the quality of health care and Quality of facility in primary health centers, participants' level of satisfaction. These findings are % of agreement.

Correlation between Quality of health care and Patient satisfaction about level of health care show that is a significant correlation between Quality of health care toward Patient satisfaction about level of health care while Correlation between the Quality of the facility and Patient satisfaction about level of health care show that is a significant [31]. The study showed that the respondents relation of patient satisfaction about level of health care and show that is significant relation between about level of health care, Quality of health care, Quality of the Facility.

Conclusion

The Saudi Arabian health care system is going through a period of evolution, as a result of the continued attention to and support from the government, Saudi health services have advanced greatly over recent years in all levels of health services: primary, secondary and tertiary. This has been brought about by the new vision of the Ministry of Health and the development of a national health strategy to meet the challenges. There is an urgent need to take new initiatives to improve the health care services in Saudi Arabia with a focus on reforms of primary health care services. Such reforms require the challenges in many areas of health and health to be tackled including: scope, structure, infrastructure, financing, increased demand, increased costs, workforce, inequitable access to the services, quality and safety of services, growing burden of chronic diseases, information systems, management and leadership issues, and the referral system.

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