INFLUENCE OF HEALTH CARE SERVICES QUALITY ON RESIDENT PATIENTS' SATISFACTION DURING 'COVID 19' PANDEMIC: CASE STUDY OF PRIVATE HOSPITALS IN KSA

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ABSTRACT

Current study aimed at examining influence of healthcare service quality on satisfaction of resident patients during COVID19 pandemic within private Saudi hospitals. Quantitative approach was utilized depending on SERVQUAL and was adapted to healthcare service quality through adopted variables of (tangibles, reliability, responsiveness, confidence or assurance, empathy, process and responsibility). Primary data were collected from (500) resident patients who had a stable moderate health status. SPSS was employed to screen and analyze collected data. Results of study indicated that there appeared a positive attitude from patients towards healthcare services quality within Saudi private hospitals which was attributed to (responsibility) and (process) as those variables appeared to be the most influential variables on satisfaction of resident patients within hospitals. Study recommended deepening health awareness among hospital workers about the concept, objectives and dimensions of the quality of health services, as they relate to human life and the human being is a supreme value, which requires the hospital to make every effort to provide him with distinctive quality health services. In addition to increasing the interest of hospital administrations in health management and hospital management and deepening them in relation to the quality of health services and their dimensions, as this contributes and strengthens the hospital's ability to provide health services of distinctive quality to its patients, those with Covid-19 and others.

Keywords: Healthcare Service Quality, TQM in Health Sector, KSA, COVID19, Resident Patients, SARS, Pandemic, SERVQUAL, Tangibility, Reliability, Responsiveness, Confidence or Assurance, Empathy, Process and Responsibility.

INTRODUCTION

In times of disasters, epidemics and pandemics, schools and universities are disrupted, and countries announce curfews, air traffic and travel stop, markets stagnate, and warning rise: "Stay at home and protect yourself.", Such cries may work with some, but they are not suitable for health sector workers from doctors, nurses, workers and administrators who find themselves in the front lines of trials to defeat the "enemy" and reduce number of lost souls (Al-Ateeq et al., 2020). Büyüközkan et al. (2020) argued that the concern for the quality of services is equivalent to or may outweigh the concern for the quality of goods in many countries of the world, especially the developed ones, but the quality of health service has received more attention than other services due to the issue of health and human life, which is a supreme value on earth. This interest in the quality of health service crystallized as those interested in this field determine the

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dimensions of health service quality and these dimensions are considered indicators to measure the level of health service quality.

Problem Statement

Despite the measures taken by governments in an attempt to slow down and control the spread of COVID19, but this did not prevent the collapse of health systems in some countries such as America and some European countries, as the Corona pandemic showed the problems of health systems in developed and non-developed countries in terms of the acute shortage of doctors and nurses, weak infrastructure of health institutions, low levels of preparedness and readiness, and here comes to mind the question about the deep-rooted conviction of the superiority of health institutions in developed countries and their true potential and the inferiority of health institutions in third world countries (Bradley & Chahar, 2020).

According to Ağalar and Engin (2020), the problem that accompanied the shortage in the number of doctors, nurses and other health personnel, was the acute shortage of personal safety equipment (protective suits, masks, gloves and other protective supplies) and this shortage complicated the problem in addition to the shortage in the numbers of intensive care beds and their devices.

This managed to increase the gap size between expected and real healthcare services that are provided to COVID19 patents around the world (Barello & Graffigna, 2020) while Moazzami et al. (2020) argued that lack of knowledge of the strategic stock of preventive supplies and failure to assess the readiness of human cadres in terms of training on infection control mechanisms, the safety of personal medical personnel, and the readiness of epidemiological monitoring and investigation cadres play an important and decisive role in the health system's resilience in the face of the pandemic, which calls for the need for the state to make a "huge investment" in terms of resources to train health personnel in monitoring (Gavin et al., 2020) potential new cases, monitoring, investigating and controlling infections and other areas.

Aim and Objectives

Based on above argument, current study aimed at examining the influence of health care services quality on resident patients' satisfaction during 'COVID 19' pandemic within Saudi private hospitals.

Reaching the aim will be possible through realizing following set of objectives:

1. Examine the current status of Saudi healthcare service quality.
2. Identify aspects of shortage from perspective of COVID19 patients.
3. Suggest possible remedies for the gap between expected and real service provided for COVID19 patients within Saudi hospitals.

Model and Hypotheses

In order to present aim of study in a clearer way, researcher provided a model that highlighted the relationship between variables:

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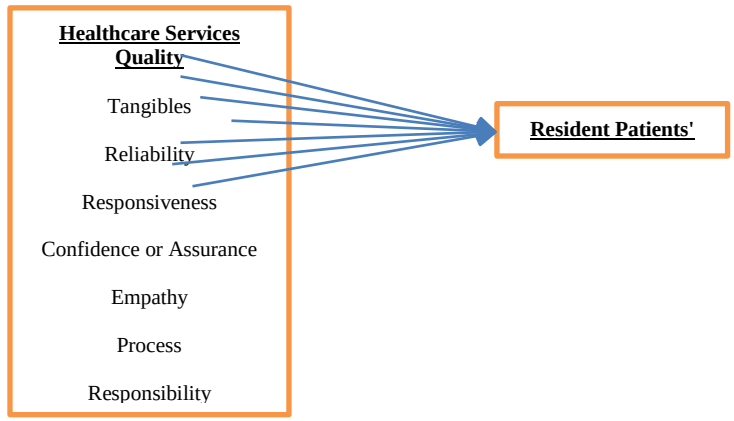

(Anbari et al, 2014; Ko and Chou, 2020)

FIGURE 1
STUDY MODEL

LITERATURE REVIEW

Introduction

An epidemic appeared in the Chinese city of Wuhan in December 2019, an epidemic caused by a coronavirus of the Coronavirus strain called COVID 19, and then this virus spread in all countries of the world, and this epidemic was considered as a pandemic according to the World Health Organization, and all countries were called to take the necessary measures And precautions against this pandemic (WHO, 2020).

This event affected all the different sectors, the first of which is the health facilities of different names, which were actually affected in terms of the services they provide and their absorptive capabilities in receiving the huge number of patients in one day (Tam et al., 2021). This increased pressure on the health sectors came as a result of the increase in the number of patients seeking medical services with Covid-19, in addition to patients with other communicable and non-communicable diseases (Sultana et al., 2020).

Hence, an urgent need emerged to ensure the continued performance of the health service at a good level that is appropriate for its applicants, but there are indications that the quality of health services has declined.

Healthcare Service Quality

The first to use this concept in the field of medicine was a British nurse called "Florence Nightville" who was supervising the provision of health care in military hospitals during the Crimean War by introducing simple performance standards into her work, which led to a significant decrease in the number of deaths in those hospitals (Behice et al., 2018).

Schmidt et al. (2019) stresses that the issue of health service quality has become one of the basic topics in the marketing of health care services, and that this issue is of concern and focus by hospital administrations, beneficiaries of health care services, doctors, and the funding agencies for these services, as these multiple parties focus on The issue of health service quality

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in order to achieve its goals and interests, as defects and errors in the quality of health care are unacceptable and its effects go beyond material damage to physical and psychological harm, and it is necessary to aspire to a healthy practice free from defects.

The concept of quality is one of the latest management concepts based on a set of policies and principles that any administration tries to adopt in order to achieve the goal in the best possible way. Al-Omari (2020) believes that quality management is an integrated approach to leadership and operation of the organization in order to achieve continuous improvement of performance in both the short and long terms by focusing on achieving patients' expectations of the service they receive.

Ahmed et al. (2017) indicates that the concept of quality is an important part of the organization's strategic objectives. The application of quality dimensions in health areas is one of the most important foundations that will ensure continuous improvement and reach the stage of satisfying the needs of the customer by providing services in the right way. As for Gilavand and Maraghi (2019) he indicated that health services are a form of services that modern societies attach great importance to because of their close association with public health and the lives of individuals in society. This importance crystallized - according to Al-Neyadi et al. (2018) - through the interest in the diagnostic, curative, rehabilitative, social, and psychological health services provided by the state and the associated nursing, ambulance and emergency services.

Generally speaking, quality of healthcare services was defined by Ayaad et al. (2019) as a set of procedures established to ensure/guarantee high levels of quality of health service provided to visitors to health organizations. According to Egbon (2020), health service quality is a form of the method used by the health organization to distinguish itself from other health organizations similar to it in activity by forming a picture of the health organization through which the personality of the organization is determined at all levels.

Healthcare Services Quality Dimensions

The quality of health services is measured by the availability of many dimensions, and there is still no clear agreement on the dimensions that determine the level of health service provided by any health facility in the country (Gholizadeh et al., 2020). In 1985 Perry presented ten dimensions of health service quality that included responsiveness, safety, reliability, efficiency, accessibility, communication, courtesy, reliability, care and empathy, and tangibility. Meanwhile, Qolipour et al. (2018) presented five dimensions of health service quality, represented by responsiveness, reliability, assurance, tangibility and empathy. On the other hand, Srivastava and Prakash (2019) looked at the dimensions of service quality in health services as including reliability, responsiveness, safety, empathy, and tangibility.

The dimensions of the quality of health services are among the basic dimensions to achieve the goals of the hospital, including: improving the quality of health services and making them more responsive to the needs of community members. Whereas the issue of the dimensions of health service quality is receiving great attention by writers in the field of hospital management as it relates to human life. In the current study, the dimensions of health service quality that were reported in the studies of (Anbari et al., 2014; Ko and Chou, 2020) as recent studies that will shed light on the quality of health services in the current situation of the Corona pandemic.

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The main dimensions of quality healthcare services and which are adopted are

Tangibility

Tangibility refers to the appearance of the facilities, physical and human equipment, and communication materials and equipment, that is, aspects related to the tangibility of the service, which include buildings, information and communication technology used in it, the internal facilities of the buildings and equipment necessary to provide the service, the external appearance of the workers, and the internal arrangements of health organization. The tangible dimension in the field of health service quality includes clean doctors 'offices. Hospital workers use standard means or machines, and prescriptions (medicines and medical supplies) must be easy to understand (Ali, 2018).

Reliability

According to Srivastava and Prakash (2019), reliability means the ability of the health service provider (doctor, analyst, nurse, and others) to reliably perform the promised health service, in addition to providing it with a high degree of accuracy and health. Weheba et al. (2018) indicated that accreditation in the field of health services means adhering to the deadlines set for the beneficiaries (patients) as well as delivering the results of laboratory tests, x-rays and others to the beneficiaries according to the specified dates, as well as reducing the percentage of canceled appointments to the lowest possible level.

Responsiveness

This dimension means the service provider's ability to achieve prompt response to the beneficiaries 'requests and inquiries, as the response reflects the desire or satisfaction to help the patient and provide fast service (Al-Omari, 2020). Responsiveness in the field of health services means the extent of the service provider's ability, willingness and willingness to always provide service to the beneficiaries when they need it, Halcomb et al. 2020, and Is that all patients, regardless of their origin, and their condition, receive prompt care by hospital staff with good treatment and cooperation, and an adequate or appropriate and unobtrusive waiting time (Ahmed et al., 2017). As for Qolipour et al. (2018) it was indicated that the response in the field of health service includes the following variables: the speed in providing the required health service, the immediate response to the needs of the patient, whatever the degree of preoccupation, the permanent willingness of workers to cooperate with the patient, the immediate response to inquiries and complaints, and informing the patient exactly about the date Service delivery and completion.

Confidence or Assurance

This dimension is the testament, and it refers to the information and courtesy of those in charge of providing the service, and their ability to inspire confidence and trust (Gholizadeh et al., 2020). Also, this dimension in the field of health service results from the dependence or confidence of patients in the doctors and hospital staff, and confidence in their qualifications and ability, that is, the features that characterize the workers in terms of knowledge, ability and confidence in providing service. This dimension in the health sector (Monaghesh & Hajizadeh

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2020) includes the reputation and stature of the hospital, the distinguished knowledge and skill of the doctors and medical staff, and the personal characteristics of the staff (Egbon, 2020).

Empathy

Empathy as a dimension includes the organization's employees' interest in the beneficiaries personally; the understanding of the organization's workers for the needs of the beneficiaries, the suitability of the organization's working hours to suit all the beneficiaries, the organization's keenness on the higher interest of the beneficiaries, in addition to adequate awareness of the needs of the beneficiaries (Ayaad et al., 2019). According to Al-Neyadi et al (2018), in the health field, the dimension of empathy is the degree of care and care for the beneficiary in particular, taking care of their problems and working to find solutions to them in elegant humane and grateful ways.

Process

The process here refers to the mechanism by which the medical protocol is applied in an orderly and orderly manner without confusion and taking into account ages, health status, gender, and general health level (Sheingold & Hahn, 2014). That is, what is meant by the process in the field of health services is any process that the health staff is required to apply to the patient, starting from admission procedures, classification, patient directivity, diagnosis, and down to the stage of discharging the patient from the hospital with an exit prescription (Rumintjap & Wandebori, 2017).

Responsibility

Hospitals and the entire health sector must be responsible for the decisions they make, and these decisions must be based on a clear and rational plan in which the health and safety of patients is the priority. Responsibility in the health sector also includes accountability for diagnoses, results of analyzes provided to patients, medical reports issued by them, and the ability to be understood and approved by all medical authorities recognized in the country (Oh & Ham, 2019).

Measuring Healthcare Service Quality

Measuring the quality of services is considered one of the very difficult tasks, given the invisible (tangible) nature of the service and its instantaneous consumption (Akdere et al., 2020). There are usually two methods for measuring service quality, the first is based on the beneficiaries' expectations of the service and their awareness of its level, and then defining the gap between their expectations and the actual services provided to them which can be actualized depending on SERVQUAL (Aydin, 2017). Haque and Sultan (2019) indicates that the gap that forms between measuring the beneficiaries' expectations and the actual service that reaches them carries with it different dimensions that include the following:

1. The gap between the management's perception and the expectation of the beneficiary, that is, the administration's inability to know the desires and needs of the beneficiary
2. The gap between the management's perception and the service's specifications, that is, its inability to deliver the service and its specifications to the level of the beneficiaries 'expectations

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3. The gap between specifications and what is actually provided, and the reason is the low level of personnel working to provide the service
4. The gap between the service received and between external communications, meaning that the service that the health organization prepares for its beneficiaries differs from the service that is provided to them.
5. The gap between the perceived service and the service provided, and this gap is the results of the meeting of all the previous gaps.

The other method of measuring service quality is through the SERVPERF which is a more modifying method than the SERVQUAL method and depends on the direct evaluation of the processes and methods that accompany the provision of the service to the beneficiary, and the SERVPERF carries the same dimensions that the SERVQUAL has, which include tangibility, reliability, responsiveness, safety, empathy and that translate aspects of Quality of service in the health facility. And with the existence of two methods for measuring service quality, the debate is still going on about the measurement methodology and the statistical methods used to verify the reliability and reliability of each of these two measures of service quality, as the researchers were divided into two teams between supporters and opponents of each of them.

METHODOLOGY

Quantitative methodology was adopted in order to achieve aim of study, SERVQUAL questionnaire was adapted to fit aim of study, as statements were modified to suit the environment of study and examine the healthcare service quality within Saudi private hospitals from perspective of COVID19 patients. The questionnaire stemmed from Anbari et al. (2014); Ko and Chou (2020); Al-Omari (2020) and it was modified and adapted by researcher to fit the environment of study.

Population of study consisted of COVID19 patients who have been or still admitted within private hospitals in KSA. A convenient sample of (500) patients were chosen in order to represent population of study. Patients responded to the questionnaire after it was uploaded online, their consent was the first thing that was adopted, as they took part in the study based on their own well, there were no pressure on them to participate, they had the total freedom to withdrawal whenever they felt they need to.

SPSS was used in order to screen and analyze primary data, descriptive statistics, mean and standard deviation, in addition to simple and multiple regression was used to test hypotheses. Reliability test was done utilizing Cronbach alpha, Alpha value for the scale =0.962 is acceptable since it is greater than the cutoff value 0.60:

DISCUSSION

Demographics

Table 1 above presented frequency and percentages of sample responses to questionnaire according to demographics (gender, age, education an income). It appeared from table 1 that majority of respondents were males forming 64.0% of the sample, who were within age range of 29-39 years old forming 46.4% of total sample. As for education, it appeared that majority of respondents had a BA degree forming 63.8% of the sample with an income of $1001-1500 forming 30.6% of the sample.

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Questionnaire analysis

As it was seen in Table 2 above, respondents had positive attitudes towards statements of study as it is seen that all of them scored higher than mean of scale 3.00. In addition to that, through following the mean of statements, it appeared that the most positively answered statements was articulated "Staff provide appropriate, accurate, clear communication and informing" which sored a mean of 4.07/5.00 and indicated as statistically positive attitude. On the other hand, the least positively answered statement was articulated "Staff is willing to help and correct the mistakes and errors" scoring a mean of 3.48/5.00 which was also seen as statistically positive result is shown in Table 3.

Table 1
SAMPLE CHARACTERISTICS ACCORDING TO DEMOGRAPHICS

Gender		
	f	**%**
Male	320	64.0
Female	180	36.0
	Education	
	f	**%**
High School	72	14.4
BA	319	63.8
MA	71	14.2
PhD	38	7.6
	Age	
	f	**%**
18-28	96	19.2
29-39	232	46.4
40-50	85	17.0
51-61	41	8.2
+62	46	9.2
	Income ($)	
	f	**%**
500<	127	25.4
501-1000	153	30.6
1001-1500	132	26.4
>1501	88	17.6

Hypotheses Testing

Main hypothesis

H_0: *Healthcare service quality in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic*

Multiple regression was used to test above hypothesis, r = 0.82 reflected high and relationship between the independent variables and the dependent variable is shown in Table 4. Also, it was found that the independent variables explained 67.2% in the variance of the

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dependent variable. Also it was found that F value was significant at 0.05 level, that means Healthcare service quality in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

Table 2
QUESTIONNAIRE ANALYSIS

	Mean	Std. Deviation
Healthcare Services Quality		
Tangibles		
Doctors, nurses and medical staff have a neat, professional appearance	3.83	1.124
The wards are comfortable and attractive	3.70	1.192
Visually appealing materials associated with the service	3.73	1.041
Wards, offices and rooms are easy to find, easy to locate and contact	3.67	1.038
There are parking spaces for family and visitors	3.60	1.005
Reliability		
The hospital perform the service for COVID 19 patients right and accurate especially at first time	3.52	1.051
The staff provides the services for corona patients at the promised time	3.58	1.030
Staff is willing to help and correct the mistakes and errors	3.48	1.049
Service is dependable for both patients and their families	3.50	.994
There is a good level of organization in the hospital	3.51	1.045
COVID19 patients always take priority	3.49	1.004
Responsiveness		
Staff is polite and kind especially when they are very busy	3.59	1.030
Staff keep patients and their families informed of when services will be performed	3.53	1.067
Staff is willing to provide advises and suggestions to guide patients and their family	3.77	1.088
Doctors are easy going, smooth and available all the time	3.66	1.084
Medical staff present prompt serviced to patients and respond quickly and efficiently	3.88	1.000
Confidence or Assurance		
Medical staff are confident and make patients and their families feel safe	3.79	.985
There is emergency buttons for code blue all over the hospital	3.81	.976
Medical staff give clear and understandable answers to worried families	3.69	1.003
Staff provide appropriate, accurate, clear communication and informing	4.07	.881
Empathy		
Nurses and auxiliaries devote enough times to their patients	3.67	1.001
Medical staff sincerely concerning about the problems and willing to help patients	3.92	.894
The hospital provide services 24/7	3.90	.887
Medical staff give attention to patients and having the patients' best interest in heart	3.63	1.004
The hospital supports patients in their willingness to get better	3.85	.829
Process		
The hospital follows WHO standards in dealing with COVID19 patients	3.75	1.029
Medical employees provide the services with an appropriate speed	3.76	1.052
COVID19 departments are supported with up-to-date equipment	3.82	.991
There is a reasonable waiting time for admission and discharge	3.57	1.110
There is enough number of employees to meet the demands	3.60	1.078
Responsibility		
Hospital staff are being polite and kind and behave rationally	3.63	1.124
All hospitals in KSA are equipped with fit departments for COVID19 patients	3.52	1.112
The hospital is willing to accommodate special request of the special patients	3.68	1.068
The same level of service is reachable throughout all KSA hospitals	3.86	.899
Resident Patients' Satisfaction		
I get all the primary care I need from the hospital	3.45	1.113

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I get all the care I need through my visits to hospital clinics	3.79	1.056
I have faith in physicians ability to treat me right	3.90	0.999
I feel that COVID19 patients got all the attention through the pandemic and other patients were ignored	3.64	1.056
The hospital was able to meet requirements of the pandemic	3.64	1.108
I was satisfied through my stay at the hospital	3.61	1.130

Table 3
DESCRIPTIVE STATISTICS OF VARIABLES

	Mean	Std. Deviation
Tangibles	3.7056	0.86798
Reliability	3.5150	0.81878
Responsiveness	3.6860	0.82829
Assurance	3.8390	0.80615
Empathy	3.7940	0.68036
Process	3.6984	0.83630
Responsibility	3.6695	0.87345
Satisfaction	3.6730	0.84853

Table 4
TESTING MAIN HYPOTHESIS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.820a	0.672	0.667	0.48949

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	241.402	7	34.486	143.932	0.000
	Residual	117.883	492	0.240		
	Total	359.285	499			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.292	0.133		2.196	0.029
	Tangibles	0.249	0.035	0.255	7.112	0.000
	Reliability	-0.035	0.043	-0.033	-0.802	0.423
	Responsiveness	0.180	0.043	0.176	4.193	0.000
	Assurance	-0.070	0.043	-0.066	-1.643	0.101
	Empathy	-0.082	0.047	-0.066	-1.751	0.081
	Process	0.289	0.041	0.285	6.975	0.000
	Responsibility	0.390	0.039	0.401	10.057	0.000

Sub-Hypotheses

H_1: *Tangibles in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

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Linear regression was used to test above hypothesis, r = 0.61 reflected medium and positive relationship between the independent variable and the dependent variable is shown in Table 5. Also, it was found that the independent variable explained 37.2% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level, that means Tangibles in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

H_2: *Reliability in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

Table 5
TESTING 1ST HYPOTHESIS

Model Summary						
Model 1	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
	0.610	0.372	0.371	0.67292		
ANOVA						
Model 1		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
	Regression	133.783	1	133.783	295.447	0.000
	Residual	225.502	498	0.453		
	Total	359.285	499			
Coefficients						
Model 1		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
	(Constant)	1.462	0.132		11.073	0.000
	Tangibles	0.597	0.035	0.610	17.189	0.000

Table 6
TESTING AND HYPOTHESIS

Model Summary					
Model 1	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	
	0.555	0.308	0.306	0.70677	
ANOVA					
Model 1		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
	Regression	110.526	1	110.526	221.266	0.000
	Residual	248.760	498	0.500		
	Total	359.285	499			
Coefficients						
Model 1		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
	(Constant)	1.653	0.139	11.850		0.000
	Reliability	0.575	0.039	0.555	14.875	0.000

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Linear regression was used to test above hypothesis, r = 0.555 reflected medium and positive relationship between the independent variable and the dependent variable is shown in Table 6. Also, it was found that the independent variable explains 30.8% in the variance of the dependent variable. Also it is found that F value is significant at 0.05 level, that means Reliability in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

H_3: *Responsiveness in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

Linear regression was used to test above hypothesis, r=0.581 reflected medium and positive relationship between the independent variable and the dependent variable is shown in Table 7. Also, it is found that the independent variable explained 33.7% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level, that means Responsiveness in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

H_4: *Confidence or assurance in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic*.

Table 7
TESTING 3RD HYPOTHESIS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.581a	0.337	0.336	0.69150

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.159	1	121.159	253.383	0.000
	Residual	238.127	498	.478		
	Total	359.285	499			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.480	0.141		10.484	0.000
	Responsiveness	0.595	0.037	0.581	15.918	0.000

Linear regression was used to test above hypothesis, r = 0.502 reflected medium and positive relationship between the independent variable and the dependent variable is shown in Table 8. Also, it was found that the independent variable explains 25.2% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level, that means Confidence or assurance in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

H_5: *Empathy in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

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Linear regression was used to test above hypothesis, r = 0.489 reflected medium and positive relationship between the independent variable and the dependent variable is shown in Table 9. Also, it was found that the independent variable explained 23.9% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level, that means Empathy in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

Table 8
TESTING 4TH HYPOTHESIS

Model Summary						
Model 1	**R**	**R Square**	**Adjusted R Square**		**Std. Error of the Estimate**	
	0.502a	0.252	0.251		0.73450	
ANOVA						
Model 1		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
	Regression	90.620	1	90.620	167.973	0.000
	Residual	268.666	498	0.539		
	Total	359.285	499			
Coefficients						
Model 1		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
	(Constant)	1.644	0.160		10.273	0.000
	Assurance	0.529	0.041	0.502	12.960	0.000

Table 9
TESTING 5TH HYPOTHESIS

Model Summary						
Model 1	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
	0.489	0.239	0.238	0.74093		
ANOVA						
Model 1		Sum of Squares	df	Mean Square	F	Sig.
	Regression	85.891	1	85.891	156.455	0.000
	Residual	273.394	498	0.549		
	Total	359.285	499			
Coefficients						
Model 1		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
	(Constant)	1.359	0.188		7.234	0.000
	Empathy	0.610	0.049	0.489	12.508	0.000

H_6: *Process in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

Linear regression was used to test above hypothesis, r = 0.708 reflects high and positive relationship between the independent variable and the dependent variable is shown in Table 10. Also, it was found that the independent variable explains 50.2% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level , that means Process in

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Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

H_7: *Responsibility in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.*

Table 10
TESTING 6TH HYPOTHESIS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.708	0.502	0.501	0.59965

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	180.215	1	180.215	501.183	0.000
	Residual	179.070	498	0.360		
	Total	359.285	499			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.015	0.122		8.343	0.000
	Process	0.719	0.032	0.708	22.387	0.000

Table 11
TESTING 7TH HYPOTHESIS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.741a	0.549	0.548	0.57069

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.094	1	197.094	605.164	0.000
	Residual	162.192	498	0.326		
	Total	359.285	499			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.033	0.110		9.361	0.000
	Responsibility	0.720	0.029	0.741	24.600	0.000

Linear regression was used to test above hypothesis, r = 0.741 reflected high and positive relationship between the independent variable and the dependent variable is shown in Table 11. Also, it was found that the independent variable explained 54.9% in the variance of the dependent variable. Also it was found that F value was significant at 0.05 level, that means Responsibility in Saudi private hospitals positively influence resident patients' satisfaction throughout COVID19 pandemic.

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DISCUSSION

Current study aimed at examining the influence of healthcare service quality on resident patients' satisfaction during COVID19 pandemic, and how patients evaluate the level of medical services in light of the disease that surprised the whole world since the beginning of 2020. Through a self-administered questionnaire, (500) resident patients of COVID19 who were classified as stable and moderate quo responded regarding their evaluation of healthcare services within private Saudi hospitals. Results of study were:

1. There appeared a high level of awareness within Saudi private hospitals regarding quality of healthcare services as respondents appeared to have positive attitudes towards statements of questionnaire and they managed to fully administer the questionnaire.
2. Main hypothesis of study was accepted and it appeared that healthcare quality service positively influenced resident patients' attitude towards hospital services during COVID19 pandemic in Saudi Arabia
3. All variables of healthcare services dimensions (SERVQUAL) were tested in a form of hypotheses and it appeared that all dimensions were influential in a positive way.
4. The most influential variable of all appeared to be that "responsibility" was the most influential on resident patients' attitude during COVID 19 pandemic as it explained 54.9% of the relationship.
5. In the 2nd rank of influence, it appeared that process formulated the positive attitude of resident patients as it explained a variance of 50.2% of the relationship.
6. Other variables also appeared to be influential as all of them scored a medium to high relationship to the main variable.

The study proved that there is a significant impact of the quality of health services on patient satisfaction through the benefit that it achieves socially and economically, as the quality of health services, specifically during the current period, has proven its effectiveness in reducing infections resulting from the spread of the Coronavirus, considering that it is an epidemic that has a negative impact on the national economy. And what prevented individuals from continuing to work and production, in addition to the financial burdens that the state incurred in order to provide the necessary treatments and vaccines, in addition to the trained and qualified health personnel to deal with patients with this virus, including doctors, consultants, and nursing staff.

Among variables of health service quality taken in study, it appeared that all of them were influential in different degrees with focus on the responsibility of the health organization in being reliable and responsible for its strategies, protocols and efficiency in treating COVID19 patients with the maximum attention and care. In addition to that, the variable of process also appeared to be influential given that all respondents focused on the process adopted in dealing with COVID19 patients in terms of admission, treatment, administrating and discharge.

The study also demonstrated what came along with Ali (2018); Srivastava and Prakash (2019) that the high level of health services for patients is inevitable due to the spread of a pandemic that was not previously known and its consequences unknown to the affected body, and therefore attention to patients and focusing on them is necessary in order to benefit from this experience at the scientific level in terms of studying the impact that the disease has on humans from the medical point of view, in addition to benefiting from the experience at the administrative level so that errors are monitored and risk management strategies of the health sector are modified in a manner commensurate with the situations that may appear suddenly.

The study also indicated that the quality of health services all have a positive relationship on the level of patient satisfaction in terms of expected services compared to perceived services, which leads to the need to reconsider the existing health structure now and how it is evaluated and modified in a way that ensures its continuity and non-collapse, as happened in Lots of

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countries like Britain, Brazil and Italy, which rhymed with study by Weheba et al. (2018) and Ahmed et al. (2017).

The study was able to clarify what was indicated before by Qolipour et al. (2018); Egbon (2020) that the need to apply quality in health services has increased and to emphasize the importance of the commitment of good complexes to provide good services in accordance with recognized health standards and to increase the awareness of the beneficiaries to obtain distinctive good services that achieve their aspirations, in addition to providing human capabilities specialized in the field of quality to meet the needs of the beneficiaries of these services and increase investment in them. The application of quality standards in health services aims to raise the efficiency and effectiveness of managing the resources available at the medical facility, in order to improve the level of utilization of the available capabilities, and reduce the loss and leakage rates of these capabilities, as the successful and rational management and operation means providing more health care, reducing wasted expenditures and wasted potentials, and then increasing profits and improving the levels of health services, which agreed with results of Al-Omari (2020); Gholizadeh et al. (2020).

CONCLUSION AND RECOMMENDATIONS

The countries that hastened to declare war against the virus are not practically prepared to repel its aggression or repel what is known as the counter-attacks of the epidemic, because they have to resort and rely on their health infrastructure, including hospitals, clinics, doctors, nurses, medicines, medical laboratories ... etc., but, paradoxically, they are the same countries which has sought during the past decades to deprive that infrastructure of the funds necessary to strengthen and develop it, improve and improve the quality of health services in it.

The impact of the Covid-19 virus on health systems that has resulted and will result in the effects on the effectiveness of these systems more than their efficiency in terms of the correct achievement of goals; The provision of health care to those in need, mainly because of its impact on the effectiveness of health systems. The effects of the new Corona require us to pause a little to review the philosophy of health systems work and the method of their formation in terms of effectiveness and efficiency, on the basis that "health safety" is the origin of the service and the right A project for every citizen, and accordingly, it is necessary to review the nature of the relationship between the efficiency and effectiveness of the health system, whether it is a causal relationship or a relationship, and in its operational capacity as well.

Based on previous results, discussion and conclusion; current study recommended the following

1. Deepening health awareness among hospital workers about the concept, objectives and dimensions of the quality of health services, as they relate to human life and the human being is a supreme value, which requires the hospital to make every effort to provide him with distinctive quality health services.
2. Increasing the interest of hospital administrations in health management and hospital management and deepening them in relation to the quality of health services and their dimensions, as this contributes and strengthens the hospital's ability to provide health services of distinctive quality to its patients, those with Covid-19 and others.
3. Increasing the interest of hospital administrations in adopting the dimensions of the quality of health services and working to achieve them in a better way than it is now even after the end of the Covid 19 pandemic.
4. Consolidation of the strengths in hospitals in relation to the concept and dimensions of the quality of health services and work to provide all the requirements necessary to achieve these dimensions efficiently in all areas of work in the hospital.

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